THE AMERICAN JOURNAL of PSYCHIATRY

VOLUME 103
NUMBER 3
NOV. 1946

Official Organ of
THE AMERICAN PSYCHIATRIC ASSOCIATION

THE AMERICAN JOURNAL OF PSYCHIATRY

A HISTORY OF THE DEVELOPMENT OF THE CONCEPT OF FUNCTIONAL NERVOUS DISEASE DURING THE PAST TWENTY-FIVE HUNDRED YEARS

A. WARREN STEARNS, M.D.

Professor of Sociology, Tufts College, Medford, Mass.

Since the dawn of history the relation between the viscera and one's emotional life —that is, the soma and the psyche—appears to have been recognized and has become a part of the wisdom of the ages. It may properly be called folklore and, while not mentioned in Frazer's *The Golden Bough*(1) or Sumner's *Folkways*(2), it has a definite place in the Old Testament. The concepts are primitive and yet very definite. For instance, in the Book of Genesis, supposedly one of the early books of the Bible, the expression is used "the bowels yearn," implying the relation between the bowels and states of feeling. Likewise, "the belly trembles" in certain forms of excitement. Again, a person feels as if there was "an east wind in his belly." "The heart aches" and "the heart longs," and "the breath is taken away" with excitement. Long before science had noted any such relation, the people had observed it.

In conventional language there are repeated evidences scattered throughout history. One has but to look at the valentine with the picture of Cupid shooting his arrow through the heart to recognize the proverbial relationship between concepts of love and the organ, the heart. By the time of the great period of Greek learning this had become well established in thought and expressed in literature. It had developed beyond the very primitive concept of the Bible and was actually concerned with the various organs.

There appears to have been no word in the Greek language identical with the word "emotion" and Gardiner(3) doubts if there was any such concept in Greek thought. However, the use of the word "motion" and its application indicates very clearly the recognition of the relationship between the emotional life of the individual and action of the viscera. Just when the words "hypochondria," "melancholia" and "hysteria" had their origin is not certain, but they obviously are derived from the Greeks. I shall not attempt to conduct a philological research, but it is apparent that in common speech characterizations of people as "spleeny," having "no guts," "heartsick" are all indicative of the recognition of this relationship. Furthermore, the association of such relationship with certain states of mind and with certain types of personality forms an integral part of vulgarisms since such were fully recorded. Certainly the man in the street has thought since the dawn of history that courage emanated from the abdominal cavity and that lack of courage was associated with certain visceral changes. So enlightened a man as Herbert Spencer(4) in his *Study of Sociology*, in speaking of "Dutch courage," attributed the phrase to the fact that brandy stimulates the circulation and so causes great courage. He also states that a fact well known to a medical man is that heart disease brings on timidity. It would be interesting to collect the almost infinite number of references to states of feeling or types of personality associated or identified with certain organs.

Gardiner, Metcalf and Beebe-Center(3) give an excellent review of Greek thought in these matters. Pleasure is a motion, and—

> . . . . in the *Timaeus* these and similar perturbations are connected in the spirit, and doubtless under the influence of Hippocrates, with organic disturbances, particularly in the heart, the lungs, the liver and the various fluids and more mobile substances of the body. Thus the heart, excited by the vital heat, palpitates in fear and is turgid in anger; for which reason, says Plato, the gods placed about the heart the soft, bloodless and spongy lungs in order that, when passion was rife, the heart might beat against a yielding body and get cooled. In unregulated appetite the bitter gall is diffused through the liver. . . . . Again, infinite varieties of ill-temper, melancholy, rashness and cowardice, as well as of disturbances in the in-

tellectual functions, are produced by the wandering through the body of "acid and briny phlegm and other bitter and bilious humors."

That is, it is physiological. A long list of visceral responses to fear and rage are ascribed to heat and cold.

HIPPOCRATES

Throughout the entire period under study one finds Hippocrates quoted; yet in the translation of the genuine works of Hippocrates by Francis Adams(5), one finds disappointingly little. There are a few references to hysteria, but hypochondria does not appear in the index, nor is it to be found in the text. Globus hystericus is mentioned and Adams states that he does not remember to have met with the term in any of the ancient medical works except in the Hippocratic treatises. Under *Diseases of Women* a long description of hysterical convulsions is found. These convulsions are said to have attacked principally antiquated maids and widows. It is remarked that hysterical complaints bring on cough and other pectoral symptoms. In *Complaints of Young Women* it is obvious that evidences of functional nervous disease were thought to be due to uterine suffocation. In the section on *The Glands* are found some striking remarks on the sympathy between the mammæ and the uterus, illustrating the use of the concept of sympathy at that time. Under *Regimen in Acute Diseases* it is stated that if you pinch a patient with your fingers and he feels it, it is hysterical, but if the patient does not feel it, then it is a convulsion. Under *Aphorisms,* sneezing is mentioned in a woman affected with hysterics. This, and no more, is to be found. However from collateral philosophical writings it appears that about this period the Greeks thought of the uterus as a little animal running around in the body and producing various hysterical symptoms, and thus the word, hysteria. The whole matter of Greek medicine is somewhat ephemeral and it does not seem too extravagant a statement to say that the inclination is to attribute all the medical knowledge prior to Galen to Hippocrates.

GALEN

Galen, living in the first century, is said to have published 500 medical treatises and, as is well known, became the great authority for 1500 years. As late as 1559, in London, Dr. Geynes was cited before the College for impugning the infallibility of Galen. In his *Notes on Hippocrates' "Concerning Humors"* Galen(6) says:

> The majority, not only of physicians, but of philosophers, have named the part given by nature to women for the purpose of child bearing, the womb (μήτρα). I have seen on the one hand many hysterical women, some of them lying deprived of sensation and motion, with the pulse small and indistinct, or even no pulse at all, and on the other hand some with sensation, motion and reasoning powers unaffected, but scarcely breathing. Other had contractions of the limbs. There are many differences in the symptoms of hysteria practically all of which I discussed in the sixth book on the "affected parts." . . . . It is believable that these hysterical conditions take place in women owing to retention of the catamenia or the sperm; but the retention of the sperm appears to do more harm to the body than that of the catamenia, in those bodies in which the humors are corrupt and the life more inactive, and indulgence in sexual intercourse previously more frequent, and abstinence afterwards complete. These hysterical symptoms are believed to be rooted in the uterus and some consider that the womb is an organism which yearns for child bearing, and for this reason when deprived of what it desires, injures the whole body. They say that this is indicated by Plato in that sentence in which he makes the following statement, "What is called the womb or uterus in women is a living thing which longs for child bearing, and when it is fruitless long past its season, endures it painfully and with difficulty and wanders everywhere throughout the body, and shuts off the outlets of the breath, prevents breathing, puts the patient into the greatest difficulties and brings on all kinds of diseases." But we must realize as has been elsewhere shown, that the uterus is not an animal, and does not wander about, but is drawn upward and to one side, because it is filled with air, increases in width, decreases in length, and for this reason is drawn upward.

Then in *On the Places Affected by Disease* he says:

> Plato gave the name hysterical to the symptoms on the part of the nervous system, in widows or women who have long been without sexual intercourse. Hystera is the Greek word for the uterus. "The so-called uteri in women are a living animal inside [the woman] desirous of child bearing. When it is without fruit a long time after puberty it endures it protestingly, wanders about in the body and shuts off the respiratory passages."

Galen also treats of the so-called "hysterical suffocation" or "absence of respiration," terms used by physicians for the same dis-

ease. There follows a description of hysterical women. He continues:

It is agreed that this disease occurs in women who have been long widowed, who have previously had regular menstruation and borne children, and have been deprived by widowhood of regular sexual intercourse with their husbands. What could be more probable than the belief that these hysterical conditions so-called are due to retention of the catamenia or the semen whether they show themselves as absence of respiration or suffocations, or contractions of the limbs. Women need to get rid of their semen as much as men do. Abstinence, even in the young, produces heaviness of the head, nausea and feverishness, loss of appetite and indigestion. Those who enforce continence upon themselves, become slow of sensation and motion, some of them scowling and depressed as in melancholia. Sudden stopping of the habit after frequent use, as in mourning, produces this effect more generally and completely. Cases are cited in support of this. Widows and virgins with suppressed menstruation suffer from the varying symptoms of hysteria; widows even whose menstruation is not affected suffer from retention of the semen. In these women midwives sometimes find the uterus retroverted or tipped to one side as shown by the obliquity of the cervix, so that it cannot receive the semen and perform the function of which it is so desirous, and so does injury to the whole body.

CELSUS

Celsus(7), whether a great physician or a great writer, was of about the same period, and has this to say:

From the womb of a woman, also, there arises a violent malady; and next to the stomach this organ is affected the most by the body, and has the most influence upon it. At times it makes the woman so insensible that it prostrates her as if by epilepsy. The case, however, differs from epilepsy, in that the eyes are not turned nor is there foaming at the mouth nor spasm of sinews; there is merely stupor. In some women this attack recurs at frequent intervals and lasts throughout life. When this happens, if there is sufficient strength, blood-letting is beneficial; if too little, yet cups should be applied to the groins. If she lies prostrate for a long while, or if she had done so at other times, hold to her nostrils an extinguished lamp wick, or some other of these materials which I have referred to as having a specially fœtid odour, to arouse the woman. For the same end, affusion with cold water is also effectual. And there is benefit from rue pounded up in honey, or from a wax-salve made up with cyprus oil or from hot moist plasters of some sort applied to the external genitals as far as the pubes. At the same time also the hips and the backs of the knees should be rubbed. Then when she has come to herself, she should be cut off from wine for a whole year, even if a similar attack does not recur. Friction should be applied daily to the whole body, but partially to the abdomen and behind the knees. Food of the middle class should be given: every third or fourth day mustard is to be applied over the hypogastrium until the skin is reddened. If induration persists, a convenient emollient appears to be bitter-sweet steeped in milk, then pounded and mixed with white wax and deer marrow in iris oil, or suet of beef or goat mixed with rose oil. Also there should be given in draught either castory, or git or dill. If the womb is not healthy, it is cleaned with square rushes; but if it is actually ulcerated a wax-salve is made with rose oil, mixed with fresh lard and white of egg, and applied to it, or else white of egg mixed with rose oil, with pounded rose-leaves added to give it consistence. When painful the womb should be fumigated from below with sulphur. But if excessive menstruation is doing harm to the woman, the remedy is to scarify and cup the groins, or even to apply cups under the breasts. If the menstrual discharge is bad, the following medicaments are to be applied to evoke blood, costmary, pennyroyal, white violet, parsley, catmint and savory and hyssop. Let her include what is suitable in her diet: leeks, rue, cummin, onion, mustard, or any other acrid vegetable. If blood bursts out from the nose at a time when it should do so from the genitals, the groins are to be scarified and cupped, repeating this every thirtieth day for three or four months, then you may be sure that there are pains coming in the head. Then blood is to be let from the arms, and you have given relief at once. . . . . White olives also produce the same effect, also black poppy seeds, taken with honey, and liquid gum, mixed with pounded celery seeds, and given in a cupful of raisin wine. Besides the above, draughts suited for all bladder pains are made from aromatics, such as spikenard, saffron, cinnamon, cassia, and such like, also decoction of mastic does good. If in spite of these pain becomes intolerable and there is blood in the urine, venesection is proper, or at any rate wet cupping over the hips. If a woman is liable to fits owing to genital disease, snails are to be burnt with their shells, and pounded up together; then honey added to them.

The next 1500 years yields very little that is new. This was a period when thought was dominated by theologians. According to Gardiner(3):

As was to be expected, we find nothing original in the Fathers on the physiology of emotion, although the subject occasionally engages their attention. Nemesius, *e.g.*, accepts from Galen the opinion that the seat of grief is in the orifice of the stomach. Lactantius records that anger was assigned by some to the gall-bladder, fear to the heart, joy to the spleen, and sexual pleasures to the liver, but prudently refrains from expressing an opinion of his own, considering the whole matter too obscure to admit of any settled conclusion. Probably the most interesting deliver-

ance on this subject in the Patristic period is found in Gregory of Nyssa (331-394). In criticizing the doctrine that the soul is seated in the heart, he mentions as the principal support for this view the affection of the heart in emotion. But the best medical opinion, he says, is that the affection of the heart in emotion is secondary and derived and that the primary phenomenon is the contraction or dilatation of the vessels conveying the bodily fluids. He then goes on to indicate how the theory is applied to the phenomena of grief. In this, as in every painful emotion, the vessels are contracted. The first effect of this is to check the normal process of evaporation and force the contained substances into the lower cavities; hence deep breathing, sighs and groans, the object being to relieve the pressure on the lungs. The palpitation of the heart is caused by the action of the gall which, owing to the general contraction of the vessels, is driven into the orifice of the stomach; hence too the sufferer's pale and yellow look. Weeping is due to the fact that the evaporations in the vessels being checked and their functions in the viscera impeded, they rise to the head, accumulate as moisture and descending to the eyes are pressed out by the eyelids as tears. In joy we have opposite effects. The vessels are dilated and all the viscera conspire to enhance the vitality. In particular, respiration is invigorated, the volume of air inhaled is increased, as indicated by the puffed-out cheeks; to facilitate its passage nature provides for its expulsion through the mouth; and this, according to the representation, is laughter. Crude as it is, a pronounced vasomotor theory of this sort appearing at this time is not without historical importance.

SYDENHAM

After a long period of darkness, in which medical thought seems to be theoretical rather than biological, there comes a new attitude in the latter part of the 17th century. Sydenham's letter to Dr. William Cole (January, 1681-82)(8) furnishes a striking description of hysteria and hypochondria. A few quotations will indicate his insight:

. . . . which I own are neither so easily discoverable nor so readily curable as other diseases. . . . . It should seem that no chronic disease occurs so frequently as this; and that, as fevers with their attendants constitute two-thirds of the diseases to which mankind are liable, upon comparing them with the whole tribe of chronic distempers, so hysteric disorders, or at least such as are so called, make up half the remaining third part; that is, they constitute one moiety of chronic distempers.

He speaks of the similarity of hysteria and hypochondria. After commenting on a long series of visceral disorders associated with hysteria, he states:

But their unhappiness does not only proceed from a great indisposition of body, for the mind is still more disordered, it being the nature of this disease to be attended with an incurable despair; so that they cannot bear with patience to be told that there is any hopes at all of their recovery, easily imagining that they are liable to all the miseries that can befall mankind, and presaging the worst evils to themselves.

Though, in the main, Sydenham attributed this disorder to visceral disease, he does mention the external causes. In the last analysis he falls back on the mystical vital spirits, but this did not exclude visceral disease. In other words, the disorders of the vital spirits affecting the viscera and visceral disease were what Sydenham dealt with.

WILLIS

Contemporary with Sydenham was Thomas Willis. That he was still dealing with animal spirits is shown in the chapter in *The London Practice of Physick*(9) (1685) titled "Instructions Concerning Cordial Medicines, and Lexipharmicks, of Preservatives Against Venome, with Prescripts of Them":

If the thing be duly considered, the notion of Cordial Medicines was not well introduc'd, but is a meer vulgar errour; for since it is not the Heart which is the subject of Life, but chiefly, and in a manner only the Blood, and in regard the Soul it self (on whose existence and act in the Body Life depends) is founded partly in the Blood, and partly in the united stock of Animal Spirits, it plainly follows that Medicines which preserve Life entire, or restore it when in danger, do rather and more immediately regard these parts of the Soul, to wit, the Blood, the Animal Spirits than the Heart, which is a meer Muscle, serving for the Circulation of the Blood, and as often as it slackens in performing this duty, or gives it off. This does not happen through its own fault, but through that of the Blood and Animal Spirits, by which it is actuated.

It is interesting to note that he also believed in witchcraft and gives a differential diagnosis(10):

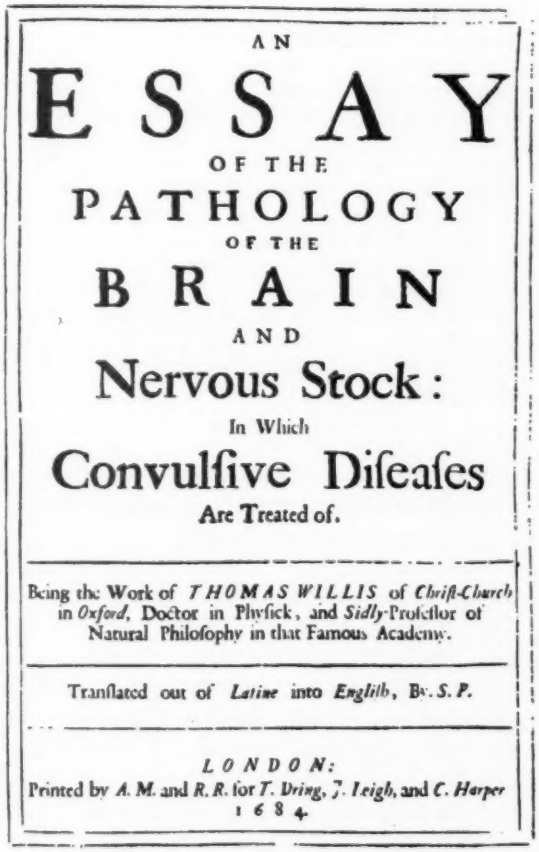
That Convulsive distempers are sometimes excited by witchcraft, is both commonly believed and usually affirmed by many Authors worthy of Credit: and indeed, as we do grant, that very oftentimes most admirable passions are produced in the humane body by the delusions of the Devil, forasmuch as he, to cause wonders, by which he might rule, by the subtlety of working, insinuates to the sensitive soul, or the constitution of the animal spirits, heterogeneous Atoms of little Bodies, and so adds now spurs or pricking forward, and now casts chains on its functions, and now carries them to mischief: also by some means he enters himself into the humane body, and as it were another more

mighty soul, is stretched thorow, it actuates all the parts and members, inspires them with an unwonted force, and governs them at his pleasure; and incites to the perpetrating of most cruel and supernatural wickednesses: yet all kind of convulsions, which besides the common manner of this disease, appear prodigious, ought not presently to be attributed to the inchantments of Witches, nor is the Devil presently or always to be brought upon the stage. For indeed as often as a child, or relation of some man of the richer sort is by chance taken with most cruel and unusual Convulsions, for the most part it falls out, that by and by the next old Woman is accused of Witchcraft, she is made guilty, and very hardly, or not at all, the wretch escapes the flames, or an halter; when in the mean time, the Disease proceeding from causes meerly natural, may be easily cured, by no other Exorcism, than Remedies usually prescribed against Convulsive Diseases: In truth the animal spirits being indued with a more cruel explosive Copula, and being strucken by it all of a heap together, obtain so much strength and vigour, beyond their proper and wonted power, as the flame of Gun-powder has above the burning of the common flame; so that those who obnoxious to this Disease, out of the fit may be govern'd, lifted up, and moved at pleasure, with the light help of one man; when the same is upon them, make nothing of the utmost endeavours and force of at least four of the strongest men: But if in the case of any one that is sick, there arise a suspition of Witchcraft, or Fascination, there are chiefly two kinds of motions that are wont to create and cherish this opinion, viz. 1. If the Patient doth perform the contortions or gesticulations of his members, or of his whole body, after that manner, which no sound man, nor mimick, or any tumbler can imitate. Then, Secondly, If such strength be shown, that surpasses all human force; to which, if the avoiding of monstrous things happen, as when bundles, as Henry van Heers relates, are cast forth by Vomit; or a live EEl as Cornelius Gamma tells, voided by Stool, without doubt it may be believed that the Devil has, and doth perform his parts in this Tragedy.

It were easie to heap together very many, and indeed admirable Histories of persons of every Age and Sex, affected after a stupendious, and as it were super-natural manner, with the manifest suspition of Witchcraft: for such are every where extant among Authors, both Physicians, and Philosophers; and because vulgar rumor noises about Diseases caused by Witchcraft, to happen often in almost every Country: for because these kind of cases are full of Imposture, or always increased by the fictious lies of the relators, to create admiration (and for that they rarely fall under the medical cure) I will here purposely omit them: what remains is, That I proceed to unfold the next kind of universal Convulsions, to wit, which comes upon malignant, or otherwise irregular or ill-cured Fevers.

It is also interesting to note that he does not include hypochondria and hysteria as nervous diseases but puts them under convulsive disorders:

The hysterical passion is of so ill fame among the Diseases belonging to Women, that like one half damn'd, it bears the faults of many other Distempers: For when at any time a sickness happens in a Womans Body, of an unusual manner, or more occult original, so that its cause lies hid, and the Curatory indication is altogether uncertain, presently we accuse the evil influence of


AN

ESSAY

OF THE

PATHOLOGY

OF THE

BRAIN

AND

Nervous Stock:

In Which

Convulsive Diseases

Are Treated of.

Being the Work of *THOMAS WILLIS* of *Christ-Church* in *Oxford*, Doctor in Physick, and *Sidly*-Professor of Natural Philosophy in that Famous Academy.

Translated out of *Latine* into *English*, By *S. P.*

LONDON:

Printed by *A. M.* and *R. R.* for *T. Dring*, *J. Leigh*, and *C. Harper* 1684.

FIG. 1.

the Womb (which for the most part is innocent) and in every unusual symptom, we declare it to be something Hysterical, and so to this scope, which oftentimes is only the subterfuge of ignorance, the medical intentions and use of Remedies are directed.

In the foregoing Chapters we have clearly shown, that the Passions called Hysterical, do not always proceed from the womb, yea, more often from the head being distemper'd: next, we shall inquire concerning the Hypochondriacal Distempers, of what original and nature they are, and upon the fault of what parts they chiefly depend. The vulgar opinion is, That the symptoms wont to accompany this Disease are wholly

produced from the Spleen; wherefore, they are ascribed very much to vapours arising from this inward, and variously running up and down here and there; when in truth, these sicknesses for the most part are convulsions and contractions of the nervous parts: but that it might appear by what causes they are wont to be excited, we ought to consider first the symptoms themselves, and to place them into some order or rank.

Many interesting cases follow: He also gives an early example of faith cure:

Among our countrymen, as delivered from our ancestors, it is thought the seventh son, or he that is born the seventh one after another in a continued series can cure this disease by stroking it only with his hand; and truly I have known many whom no medicines could help, to have been cured in a short time only by that remedy. Few doubt but that this disease want to be cured often by the Touch of our King. The reason of such an effect (if it be merely natural) ought to be assigned not to any other thing than that in the sick (especially those of ripe age) the Phantasie and strong faith of the hoped for cure induces the alteration, or rather strengthening of the Brain, whereby the morbid disposition radicated in it is profligated.

PURCELL

With the turn of the century came John Purcell(11), who, writing in 1702, tries to break away from what he calls "the Galenick old-fashion'd doctors, who explicate all things by hidden qualities" and speaks of "our modern physicians, who though they are convinc'd that the body of man is a machine, which is acted all by inward springs and motions, yet may think it arrogance for a young physician to pretend to explain them by other notions than what ingenious Willis and his followers have deliver'd to us."

Referring to the causes of vapours, he says:

In the first place, it is demonstrative, that what we call the six non-natural causes of distempers, (viz. the air we breath; our meat and drink; sleep, and want of sleep; the motions and repose of our body; the retention or evacuation of its recrements and excrements; and the passions of the mind); are none of them the immediate cause of this distemper. Therefore since none of the above-mentioned causes can be admitted, it remains that the true cause must reside in the stomach and guts; whereof the grumbling of the one, and the heaviness and uneasiness of the other generally preceeding the paroxysm, are no small proofs. . . . . No irritation can be felt in the stomach, or elsewhere, unless the spirits flow from the parts irritated to the brain.

In other words, these symptoms are due to visceral disease. The circulation of the blood and a little more knowledge of nervous anatomy are worked into his scheme, but it is the same old scheme. There is a beginning to a chemical approach:

And as for the crudities in this case, they always abound with fixed acids, being either very sharp and sower, or rough and harsh, as the patient will inform you, by the taste she has of the fumes she belches up; and in those who do not belch at this time, it is demonstrative by the effects produced; since nothing but fixed acids, or humors of a rough harsh taste, are capable of coagulating the blood to such a degree, as is requisite to cause a general chilness throughout the whole body; and it is matter of fact that nothing but fixed acids, mix'd and combined with elementary earth can cause the harsh savour they often perceive in the fumes they belch up.

His cure is quite modern and might be termed psychotherapy:

Her drink should be natural French wine, but in less quantity, and with more water, than in the other constitutions, because the blood is more apt to be put into a violent fermentation. She must avoid all concerns, anxieties, and passions, but above all things, divert herself, as much as possible, with what is more pleasing, and suitable to her genious; as seeing of plays, frequenting merry company, taking the air in the parks, where besides the benefit of the fresh air she receives; the variety of different company, and objects, which she sees, concur to pleasure her mind, and remove all anxious thoughts, and thereby contribute much towards the cure. For upon diligent search and enquiry, you will almost always find, that those who are troubled with vapours, have some deep passion or concern upon them, which renders them pensive and thoughtful; wherefore the physician ought to consider attentively the circumstances of his patient, and to inform himself of her acquaintance, what may be the cause of her concern, which having found out, he must, with the aid of her friends and relations, facilitate to her, the means of obtaining what she desires. I know an eminent practitioner who assured me, he has found better effects from this method alone, than from most other remedies that can be prescrib'd in this disease.

CHEYNE

A generation later, in 1733, George Cheyne published his great book, *The English Malady: Or a Treatise of Nervous Diseases of All Kinds*(12). The subtitle includes, as

well as nervous disease, "Spleen, Vapours, Lowness of Spirits, Hypochondriacal, and Hysterical Distempers, etc." As with all relatively unknown illnesses, nervous disease

A

TREATISE

OF

Vapours,

OR,

Hysterick Fits.

CONTAINING

An Analytical Proof of its Cauſes, Mechanical Explanations of all its Symptoms and Accidents, according to the neweſt and moſt Rational Principles: Together with its Cure at large.

By *John Purcell*, M. D.

LONDON,

Printed for *Nicholas Cox* at the *Golden Bible* without *Temple-Bar*, 1702.

FIG. 2.

is attributed to the climate and the evils of modern times. He says in his Preface:

The title I have chosen for this treatise, is a reproach universally thrown on this Island by foreigners, and all our neighbors on the Continent, by whom nervous distempers, spleen, vapours, and lowness of spirits, are in derision, called the ENGLISH MALADY. And I wish there were not so good grounds for this reflection. The moisture of our air, the variableness of our weather, (from our situation amidst the ocean) the rankness and fertility of our soil, the richness and heaviness of our food, the wealth and abundance of the inhabitants (from their universal trade) the inactivity and sedentary occupations of the better sort (among whom this evil mostly rages) and the humour of living in great, populous and consequently unhealthy Towns, have brought forth a class and set of distempers, with atrocious and frightful symptoms, scarce known to our ancestors,

and never rising to such fatal heights, nor afflicting such numbers in any other known nation. These nervous disorders being computed to make almost one third of the complaints of the people of condition in England.

THE

English Malady:

OR, A

TREATISE

OF

Nervous Diſeaſes of all Kinds,

AS

Spleen, Vapours, Lowneſs of Spirits, Hypochondriacal, and Hyſterical Diſtempers, &c.

In THREE PARTS.

PART I. Of the Nature and Cauſe of Nervous Diſtempers.
PART II. Of the Cure of Nervous Diſtempers.
PART III. Variety of Caſes that illuſtrate and confirm the Method of Cure.

With the AUTHOR's *own* CASE *at large.*

———Facilis deſcenſus Averni,
Sed revocare Gradum, ſuperaſque evadere ad Auras,
Hic Labor, *hoc* Opus *eſt. Pauci quos Æquus amavit,*
Jupiter, *aut ardens evexit ad Æthera* Virtus
Dis Geniti potuere——— VIRG.

By *GEORGE CHEYNE*, M. D.
Fellow of the *College of Phyſicians* at *Edinburg*, and *F. R. S.*

LONDON:
Printed for G. STRAHAN in *Cornhill*, and J. LEAKE at *Bath*. M.DCC.XXXIII.

FIG. 3.

One can see from his work the continuation of the chemical approach. The word "nervous" seems to have become well established. Like Purcell, he recommends—

The best of all is, where amusement or entertainment of the mind is joined with bodily labour, and constant change of air, as in hunting, bowls, billiards, and the like, and riding journies about business: for the entertainment of the mind, and keeping it agreeably diverted from reflecting on its misfortunes or misery, makes exercise infinitely more beneficial, as thoughtfulness, anxiety and concern render it quite useless.

He is definite in attributing these things to physical causes:

I never saw any person labour under severe, obstinate, and strong nervous complaints, but I always found at last, the stomach, guts, liver, spleen, mesentery, or some of the great and necessary organs or glands of the lower belly were obstructed, knotted, schirrous, or spoiled, and perhaps all these together; and it may be very justly affirmed, that no habitual and grievous, or great nervous disorders, ever happened to any one who laboured not under some real glandular distemper, either scrophulous or scorbutical, original or acquired.

There follow a number of cases, one of which was cured without any medicine whatever, by a clergyman.

DOVAR

Our old friend, Thomas Dovar(13), also writing in 1733, has a chapter on "Hypocondriacal and Hysterical Diseases." He says:

Here are two different names for the same distemper; nor can they be distinguish'd otherwise than thus: what we call hypocondriacal in men, we term hysterical in women. I shall enter only on hysterical effects, because they are more common, and more visible in the finer sex. There is no disease incident to human bodies but these hystericisms will counterfeit so exactly, that without the greatest caution, the physician must be deceived.

He then goes on to give its effect when it seized the heart, the lungs, the gullet or œsophagus, the side, stomach, intestines, kidneys, the womb, and "neither are the teeth or nails free." He attributes it to "an irregular motion of the animal spirits, which proceed from a weakness of them" and says:

The only help which can be administered in this disorder, is to fortify the animal spirits, and strengthen the Genus Nervosum: which is done by proper neuroticks, deopulatives, and such as strengthen the stomach, and help digestion: In all these there are no evacuations; and yet it may be affirm'd, these are proper remedies in the above-mentioned distemper.

FLEMYNG

In 1740 there appears a curious Latin poem with "Neuropathia" in the title. Flem-

yng(14) follows Willis in stating that hypochondria and hysteria are one and the same, and thinks that it is a disturbance of the nervous liquid and the animal spirits which causes the trouble.

chondriac, or Hysteric. Of late, they have also got the name of Nervous; which appellation having been commonly given to many symptoms seemingly different, and very obscure in their nature, has often made it to be said, that Physicians have bestowed the character of nervous, on all those

T. W. Thayer, Jr.

OBSERVATIONS

ON THE

NATURE, CAUSES, and CURE

Of thoſe DISORDERS which have been COMMONLY called

NERVOUS, HYPOCHONDRIAC, or HYSTERIC:

To which are prefixed ſome Remarks on the SYMPATHY of the NERVES.

BY

ROBERT WHYTT, M. D. F. R. S.
Phyſician to his Majeſty, Preſident of the Royal College of Phyſicians, and Profeſſor of Medicine in the Univerſity of Edinburgh.

Συμπαθία πάντα. Hippocrat. de aliment. § 4.

The SECOND EDITION, Corrected.

EDINBURGH:
Printed for T. BECKET, and P. A. DE HONDT, London; and J. BALFOUR, Edinburgh.
M DCC LXV.

FIG. 4.

WHYTT

The trend of thought from then on is well indicated by Robert Whytt(15), sometimes called "the father of physiology," writing in 1765. His Preface has quite a modern tinge:

The disorders which are the subject of the following observations, have been treated of by authors, under the names of Flatulent, Spasmodic, Hypo-

disorders whose nature and causes they were ignorant of.

He has a section on "Sympathy of the Nerves" and says:

Nothing makes more sudden or more surprising changes in the body, than the several passions of the mind. These, however, act solely by the mediation of the brain, and, in a strong light, shew its

sympathy with every part of the system. Such is the constitution of the animal frame, that certain ideas or affections excited in the mind, are always accompanied with corresponding motions or feelings in the body; and these are owing to some change made in the brain and nerves, by the mind or sentient principle: but what that change is, or how it produces those effects, we know not: as little can we tell, why shame should raise a heat and redness in the face, while fear is attended with a paleness. These, and many other effects of the different passions, must be referred to the original constitution of our frame, or the laws of union between the soul and body.

He gives the general causes as: (1) "Some morbid matter bred in the blood; (2) the diminution or suppression of some habitual evacuation; (3) the want of a sufficient quantity of blood"; and the particular causes as: "wind, tough phlegm, worms in the stomach and bowels; aliments improper in their nature or quantity; obstruction, frequently of the scirrhous kind, in the abdominal viscera; sudden and violent affections of the mind." He gives a number of cases, as well as cures.

MUSGRAVE

Samuel Musgrave, writing in 1776, has an honest title, at least: *Speculations and Conjectures on the Qualities of the Nerves*(16). His general thesis is that all disease, in the last analysis, is nervous, but he says in his introductory paragraph:

As Philosophers at present pay but little regard to any doctrines, that are not supported by experiments, it becomes necessary for every man who sollicits their attention, either to support his opinions by experimental proof, or to shew that the subject he is treating will not admit of it. I am afraid the Art of Healing, notwithstanding the many ingenious attempts to illustrate and improve it by experiments, will be found in the end to fall under this latter description. To know the relative properties of any two substances, and their agency one upon another, it is necessary to bring them both together to the test of experiment. Now the subject of medicine being the living human body, upon which we cannot at pleasure make experiments, we have no way of determining with philosophical exactness, the effects producible in it by the application of other substances.

TISSOT

Tissot(17), writing in 1755, speaks of the moral causes of disease of the nerves and the effect of the imagination and nervous tension. He calls attention to the effect of the "passions," indicating that joy, hope, love and desire are not as apt to cause nervous troubles as are hate, envy, jealousy, rage and sadness. He has a good deal to say about sympathy of the nerves quite suggestive of the modern thought concerning psychosomatic medicine.

CULLEN

William Cullen's great work first appeared in 1777(18). Part II treats of Neuroses or Nervous Diseases, this possibly being the first appearance of the word "neuroses." Since there are 171 pages, we can give them only the briefest attention. It is interesting to find chapters on Dyspepsia or Indigestion, Palpitation of the Heart, Dyspnoea or Difficult Breathing, Colic, Diarrhoea, Diabetes. Hypochondriasis, or the Hypochondriac Affection, commonly called Vapors or Low Spirits, is treated at great length. Whereas it is described as a state of mind and there is much wise comment concerning the mental attributes, its seat is definitely the stomach and it is definitely associated with dyspepsia. He speaks of the moral causes, however, and the treatment is largely what would be called today psychotherapy or diversional therapy:

It is now proper that we proceed to consider the most important article of our practice in this disease, and which is, to consider the treatment of the mind, an affection of which sometimes attends dyspepsia, but is always the chief circumstance in hypochondriasis. What I am to suggest here, will apply to both diseases; but it is the hypochondriasis that I am to keep most constantly in view. The management of the mind, in hypochondriacs, is often nice and difficult. The firm persuasion that generally prevails in such patients, does not allow their feelings to be treated as imaginary, nor their apprehension of danger to be considered as groundless, though the physician may be persuaded that it is the case in both respects. Such patients, therefore, are not to be treated either by railery or by reasoning. It is said to be the manner of hypochondriacs to change often their physician, and indeed they often do it consistently; for a physician who does not admit the reality of the disease, cannot be supposed to take much pains to cure it, or to avert the danger of which he entertains no apprehension. If in any case the pious fraud of a placebo be allowable, it seems to be in treating hypochondriacs; who, anxious for relief, are fond of medicines, and, though often disappointed, will still take every new drug that can be proposed to them.

There is much more having to do with occupation, recreation, and so forth, not es-

sentially different from the very latest word. Of hysteria he gives some comment and particularly describes the historical feature. His pathology is as follows:

With respect to this, I think it will, in the first place, be obvious, that its paroxysms begin by a convulsive and spasmodic affection of the alimentary canal, which is afterwards communicated to the brain, and to a great part of the nervous system. Although the disease appears to begin in the alimentary canal, yet the connection which the paroxysms so often have with the menstrual flux, and with the diseases that depend on the state of the genitals, shows, that physicians have at all times judged rightly in considering this disease as an affection of the uterus and other parts of the genital system. With regard to this, however, I can go no farther. In what manner the uterus, and in particular the ovaria, are affected in this disease; how the affection of these is communicated with particular circumstances to the alimentary canal; or how the affection of this, rising upwards, affects the brain, so as to occasion the particular convulsions which occur in this disease, I cannot pretend to explain. But although I cannot trace this disease to its first causes or explain the whole of the phenomena; I hope, that with respect to the general nature of the disease, I may form some general conclusions, which may serve to direct our conduct in the cure of it.

PARKINSON

James Parkinson in *Medical Admonitions to Families* (1803)(19), under "Hysterical Affections" states: "As these are, in general, symptomatic of some other disease; and most commonly, perhaps, of some particular affection of the uterine system, the rules for their treatment can only be formed, upon a knowledge of those particular circumstances to which they owe their origin"; and under "Hypochondriac Affection" he quotes Cullen and then warns against ridiculing such patients. He recognizes that the patient can do a great deal for himself and speaks of the fondness of patients for medicine. "The belief that this is due to the will of the sufferer is cruel and fallacious." He recommends diversion, such as cards, draughts, backgammon and even chess.

TROTTER

Thomas Trotter(20), "Late Physician to His Majesty's Fleet," writes in 1808 on *The Nervous Temperament* and speaks of those diseases "commonly called Nervous, Bilious, Stomach & Liver Complaints: Indigestion: Low Spirits, Gout, etc."

But there is a spceies of sympathy among certain organs of our body, that points out a more intimate connection with the mind, than what is possessed by others. The lungs and heart, in the thorax: the stomach, intestines, liver, and all the viscera subservient to digestion, have an innate sympathy with our emotions. . . . . I have also seen a considerable number of cases of nervous affection, with all the signs which are said to mark angina pectoris.

Under "The General Doctrine of These Diseases" he says:

The most prominent parts of the character of these diseases are, that they occur chiefly under peculiar modes of living; are hereditary, and affect, in a particular manner, the organs subservient to the preparation of nourishment. . . . . They are so far to be classed among mental disorders, that a disposition of mind, not easily to be defined, attends every degree and stage of them; beginning with uncommon sensibility to all impressions; peevishness of temper; irresolution of conduct; sudden transitions from sadness to joy, and the contrary; silent or loquacious; officiously busy, or extremely indolent; irrascible; false perceptions; wavering judgment; melancholy; madness: exhibiting in the whole, signs of deranged sensation.

And finally:

The causes which produce nervous diseases, may be divided into two kinds, namely, those which arise from the mind; and those which arise from the body. Of the first kind, are all the disorders of the passions: of the second kind, all those causes which affect particular organs of the body, that by their office, are intimately connected with the nervous system. Many of these causes, of both the mental and corporeal class, act for a length of time before they bring forth actual disease; but this mode of operation would seem to happen only where there was no predisposition. They may therefore be said to create predisposition, and when this is sufficiently done, a train of symptoms appears which constitutes real disease.

GEORGET

The Medical Renaissance, so-called, in France, resulted in a considerable literature concerning these matters. There were two schools of thought: one which regarded all these disorders as organic, and the other, as functional. Georget's *De la Physiologie du Systeme Nerveux et Specialement du Cerveau* (1821)(21) may be taken as an example of the literature. Although most of the book has to do with the viscera, he is

strongly of the opinion that there must be a lesion to account for the symptoms.

Il n'y a pas plus de maladies sans changement quelconque dans les dispositions des organes, que de phénomènes fonctionnels sans organs. Je ne concois donc pas de que pourraient être des lésions

DE

LA PHYSIOLOGIE

DU SYSTEME NERVEUX,

ET

SPÉCIALEMENT DU CERVEAU.

RECHERCHES

SUR LES MALADIES NERVEUSES

EN GÉNÉRAL,

ET EN PARTICULIER SUR LE SIÉGE, LA NATURE ET LE TRAITEMENT DE L'HYSTÉRIE, DE L'HYPOCHONDRIE, DE L'ÉPILEPSIE ET DE L'ASTHME CONVULSIF.

PAR M. GEORGET,

Docteur en Médecine de la Faculté de Paris, ancien Interne de première classe de la Division des Aliénées de l'Hospice de la Salpêtrière.

TOME PREMIER.

A PARIS,

CHEZ J. B. BAILLIÈRE, LIBRAIRE, RUE DE L'ÉCOLE DE MÉDECINE, N° 16.

1821.

FIG. 5.

vitales, nerveuses (hors des nerfs), de fonction, sans matière, etc., avec integrité de l'organisation. Mais je me garderai bien de prétendre toujours trouver après al mort la cause organique de tous les désordres observés pendant sa vie.

He speaks of the neuroses of digestion and of the heart, the stomach, etc.

Les trois opinions sur le siége de l'hystérie, qui nous restent à examiner, se ressemblent sous deux rapports: l'utérus est etranger a la production de cette maladie; l'hystérie et l'hypochondrie ont le même siége, sont, à très peu de chose pres, les mêmes maladies, se présentent chez l'homme et chez la femme, la première plus souvent chez celle-ci et la seconde plus fréquemment chez celui-la; ce qui tient a des dispositions particulieres, relatives à des differences dans le système nerveux de l'un et de l'autre." He then goes on to say: "Presque tous les auteurs qui ont émis l'opinion que nous examinons, ont fait dériver l'hysterie de troubles du cànal alimentaire.

BARRAS

J. P. T. Barras, in a treatise on *Les Gastralgies et Les Entéralgies, ou Maladies Nerveuses de l'Estomac et des Intestins* (1829)(22) says, under "Considerations Générales Sur Les Névroses" [and in a footnote:] Lesion du sentiment et du mouvement, sans inflammation ni lesion de structure. (Pinel, Nosog. philos.):

La doctrine dite physiologique a rendu de grands services à la médecine; je suis loin de les contester. Mais, en detruisant d'anciennes erreurs, elle en a creé de nouvelles, dont quelques-unes sont peut-être aussi dangereuses que celles qui existaient auparavant. Parmi ces nouvelles erreurs, il en est une surtout contre laquelle on ne saurait protester avec trop d'énergie, parce qu'elle tend à faire et fait en effect de nombreuses victimes; c'est celle qui consiste à regarder les névroses comme des inflammations, et à les traiter constamment par les antiphlogistiques. Je n'hesite point à le dire, cette innovation fait rétrograder la science, et devient souvent funeste aux malades.

Here we have functional nervous disease.

In the same treatise, under a chapter titled "Histoires Particuliéres" he continues:

Les praticiens sont souvent embarrassés dans le traitement des maladies de l'estomac, à cause de la diversité d'opinions et de l'incertitude qui existent maintenant sur leur nature. Avant la doctrine physiologique, les auteurs admettaient généralement des affections nerveuses de cet organe; elles étaient connues sous les noms de gastralgie, gastodynie, cardialgie, hypocondrie, etc. On les traitait par les adoucissans, les clamans, les toniques, les eaux minérales, les antispasmodiques, l'air de la campagne, l'exercice et les distractions. On variait d'ailleurs les moyens curatifs selon les causes de la maladie, l'idiosyncrasie des malades, et mille autres circonstances. Remettant tout en question, M. Broussais et ses partisans exclusifs ne veulent point admettre de névroses gastriques; à leurs yeux, toutes les maladies regardées comme telles jusqu'à ce jour sont des gastro-entérites chroniques survenues chez des personnes irritables, en d'autres termes des inflammations, qu'il faut constamment traiter par des sangsues a l'épigastre, l'eau de gomme et le régime atonique. Les faits que je vais exposer pourront éclairer cette discus-

sion. Its feront voir que le principal organe digestif est souvent atteint d'affections purement nerveuses, c'est-à-dire de lèsions de la sensibilité, sans inflammation ni altération de structure, et que ces affections s'aggravent toujours par le traitement antiphlogistique rigoureux et long-temps continué, tel qu'on l'emploie aujourd'hui: en un mot, ces faits prouveront que les médicins physiologistes sont dans l'erreur à cet égard, et que sur ce sujet, comme sur beaucoup d'autres, loin d'avoir fait faire des progrès à la médecine, ils lui ont fait un grand mal, en la détournant de la route sûre de l'observation, pour la ramener vers le champ dangereux des systèmes. Enfin, je crois pouvoir démontrer, par des faits concluans et des raisonnemens plausibles: 1° que la gastro-entéralgie differe essentiellement de la gastro-entérite chronique; 2° que la théorie dans laquelle ces maladies sont regardées comme identiques, et devant être traitées par les mêmes moyens, fait commettre des fautes extrêmement graves; 3° que cette théorie est, par conséquent, une arme dangereuse dans les mains des médecins inexpérimentés, ou séduits par les écarts de la nouvelle ecole.

DUBOIS

This controversy waxed so violent that a prize was offered for the best treatise on the subject. The prize was won by Frédéric Dubois of Amiens, who published the *Histoire Philosophique de l'Hypochondrie et de l'Hystérie* in 1833(23). There is not a new word in this treatise, but one wishing to review medical thought on these matters prior to this date need look no farther, for he covered the literary history thoroughly, if not critically.

REID

John Reid's Essays on *Hypochondriasis and Other Nervous Affections*(24), written in 1823, contains the following remark: "In the class of what are called nervous affections, it unfortunately happens that the very essence of the disease often consists in a debility of the resolution, that the ailment of body arises from an impotency of spirit, a palsy of the power of resistance." He apparently does not distinguish between melancholia and hypochondria. The whole book may be characterized as a philosophical treatise on insanity. Cases in the appendix are referred to as madness. It is interesting that his first chapter is an essay on "The Influence of the Mind on the Body."

BRODIE

Sir Benjamin C. Brodie(25)(1837) became interested in functional nervous disease. He cut the median nerve, found hysterical patients with the same symptoms, and came to this conclusion: "Now such a case as this is by no means uncommon. It is only one of many which might be adduced in proof of this proposition, namely, that the natural sensations of a part may be increased, diminished, or otherwise perverted, although no disease exists in it which our senses are able to detect either before or after death."

AXENFELD

As late as 1864, Axenfeld(26) published a monumental work on the neuroses, which is largely a review of the previous literature. He spoke particularly in these diseases of their functional nature and the absence of anatomical lesions, and also the absence of fever, the intermittent course, and the rarity of death. They are still classified according to the organs affected, although he has a good deal to say of the "passions." However, there is hardly a new word in the whole treatise.

CHANNING

Walter Channing(27), in 1860, published an interesting case, dividing his discussion into Part I, Physical, and Part II, The Mind. Under the title, *Bed Case,* he expresses a great deal of insight into functional nervous disease.

With advancing knowledge of electricity there had come into medicine a belief in the efficacy of this method of treatment. As early as 1776 Graham(28) had written a book on the subject. He speaks particularly of cases cured by sitting in a grove near the doctor's house. What appears now to have been a faith cure was attributed by him to the miraculous rays of the galvanic current. Birch (1802)(29), Yatman (1810)(30) and Hare (1819)(31) give further evidence of the efficacy of the galvanic current.

BEARD

The development of induced electricity in 1831 was subsequently followed by the utili-

zation of faradism in therapy. Beard and Rockwell published a book in 1867 titled, *The Medical Use of Electricity With Special Reference to General Electrization*(32). Apparently they had a large practice in New York and, as might be expected, a considerable number of their patients were nervous. Electricity became the panacea for all obscure ills and Beard became its exponent. Beard states: "My first paper on this subject, based on the study of thirty cases, was prepared in 1868, was read before the New York Medical Association, and was published in the Boston Medical and Surgical Journal April 29, 1869." In this, an article titled, *Neurasthenia, or Nervous Exhaustion*(33), he says:

> I am to speak to-night of a *condition* of the system that is, perhaps, more frequently than any other, in our time at least, the cause and effect of disease. I refer to *neurasthenia*, or exhaustion of the nervous system.
>
> The morbid condition or state expressed by this term has long been recognized, and, to a certain degree, understood, but the special name *neurasthenia* is now, I believe, for the first time presented to the profession.
>
> It is quite recently, indeed, that the phrase nervous exhaustion has been popularized, at least as a term expressive of any special condition of the system. Prof. Austin Flint, in his Treatise on the *Principles and Practice of Medicine*, devotes a brief space to this subject, and acknowledges his indebtedness to Dr. Fordyce Barker for first suggesting the phrase *nervous asthenia* as expressive of a special morbid condition. Besides this brief notice of Prof. Flint, this important condition of the nervous system has not, so far as I know, been dignified by a separate heading, or distinct chapter in any of our most approved treatises on the Practice of Medicine, although the general phrase *nervous exhaustion* quite frequently occurs in conversation and medical literature, and is now the common property of the profession.
>
> My own attention was called to this morbid condition quite early in my professional life, and in the cultivation of the department of Neurology and Electro-therapeutics, I have enjoyed excellent opportunities both for the study and the treatment of all the various grades and phases of this frequent malady. As a matter of necessity in describing, recording and studying cases of nervous diseases, I have for some time been in the habit of employing the term *neurasthenia* to express the morbid state that is commonly indicated by the indefinite phrase nervous exhaustion. This nomenclature would seem to be justified by philological analogy, by scientific convenience, and by actual necessity.
>
> The derivation of the term neurasthenia is sufficiently obvious. It comes from the Greek *νεῦρον*, 'a nerve,' *a*, privative, and *σθε'νος*, 'strength'; and, therefore, being literally interpreted signifies want of strength in the nerve.

From this time on, throughout his life, Beard became the prophet of neurasthenia. He spoke frequently and published widely, and neurasthenia, which he called "The Great American Disease," was firmly established in medicine till modern times. It is, perhaps, the first unitary concept of functional nervous disease. Although Beard wrote on specific types of neurasthenia, for instance sexual, his main thesis was one of nervous exhaustion, and as one reads his writings, it may with some appropriateness be said that they represent the origin of a chemical theory of disease; that is, he believed that the wear and tear of modern American life exhausted the nervous system and produced toxins which poisoned the patient. If wear and tear was the cause of this condition and nervous exhaustion the

ON

NERVOUS EXHAUSTION

(NEURASTHENIA)

ITS

Symptoms, Nature, Sequences, Treatment

BY

GEORGE M. BEARD, A.M., M.D.

FELLOW OF THE NEW YORK ACADEMY OF MEDICINE; OF THE NEW YORK ACADEMY OF SCIENCES; VICE-PRESIDENT OF THE AMERICAN ACADEMY OF MEDICINE; MEMBER OF THE AMERICAN NEUROLOGICAL ASSOCIATION; OF THE AMERICAN MEDICAL ASSOCIATION; THE NEW YORK NEUROLOGICAL SOCIETY, ETC.

SECOND AND REVISED EDITION.

NEW YORK
WILLIAM WOOD & COMPANY
27 GREAT JONES STREET
1880

FIG. 6.

pathology, insofar as Beard was concerned, electricity, especially the faradic current, was the cure.

NOTE BY EDITOR.—In his report "Neuropsychiatry in Michigan" (AMERICAN JOURNAL OF PSYCHIATRY, March 1943), Dr. Thomas J. Heldt states that Dr. Edwin Holmes Van Deusen, superintendent of the Michigan Asylum for the Insane at Kalamazoo, "was the first to add the word 'neurasthenia' to the American medical vocabulary. He described its symptomatology in an article written in 1868 and published early in 1869, before and independently of the studies of George M. Beard published in the same year."

Dr. Stearns contributes this additional note:

The article by Van Deusen is called "Supplement to the Report of the Board of Trustees of the Michigan Asylum for the Insane for the years 1867-8." It is dated Lansing, 1869. There is a preface dated February 24, 1869. So I take it this definitely stamps the publication of this article as February 24, 1869, though obviously prepared during 1868. The title of his article is "Observations on a Form of Nervous Prostration (Neurasthenia) Culminating in Insanity." On page 9 he says:

> "As to the term *neurasthenia*, it is an old term, taken from the medical vocabulary, and used simply because it seemed more nearly than any other to express the character of the disorder and more definite, perhaps, than the usual term 'nervous prostration.'"

So there is no question about the use of the word "neurasthenia" in print on February 24, 1869. However, he is describing cases admitted to a hospital for mental disease and his cases sound very much like what we now would call manic-depressive insanity—depressed. Van Deusen cites one case as early as 1860, but does not say whether he was using that term as early as that or not.

Beard later states: "My first paper on this subject, based on the study of 30 cases, was prepared in 1868, was read before the New York Medical Association, and was published in the Boston Medical and Surgical Journal April 29, 1869." I have verified the publication of this.

To summarize: Van Deusen used the word "neurasthenia" in print on February 24, 1869, and Beard used it in print April 29, 1869. Thus, from the standpoint of publication, Van Deusen has priority.

COWLES

The concept of neurasthenia continued to dominate thought, especially in America, for many years. As late as 1891, Edward Cowles(34), in a Shattuck Lecture read before the Massachusetts Medical Society, followed, in a general way, Beard's teachings, though by this time the chemical concept became more fully developed. Cowles goes to great length into recent chemical discoveries, uses the term "auto-intoxication," and speaks of the condition as due to fatigue and, more specifically, due to the accumulation of specific toxins in the body. His treatment is palliative.

Articles by Levillain (1891)(35), Knapp (36) and Putnam (1896)(37) and Morton Prince (1898)(38) follow, in a general way, the concept of nervous exhaustion with its toxic effects. The trend is toward more emphasis on the mental attributes of the disease. Prince especially speaks of re-education as a mode of treatment.

MITCHELL

However, it is likely that the greatest adaptation of Beard's concept was made by S. Weir Mitchell of Philadelphia. His book, *Fat and Blood: An Essay on the Treatment of Certain Forms of Neurasthenia and Hysteria*(39), published in 1888, went through fifteen editions. His theory was decidedly chemical. He recognized the concept of nervous exhaustion, but attributed it to the loss of fat and blood. His treatment, the rest cure, was prescribed for the specific purpose of increasing fat and blood. There is, perhaps, no more famous American physician and one of the chief causes of his fame is the rest cure. He says:

> There remains a class of cases desirable to fatten and redden,—cases which are often, or usually, chronic in character, and present among them some of the most difficult problems which perplex the physician. If I pause to dwell upon these, it is because they exemplify forms of disease in which my method of treatment has had the largest success; it is because some of them are simply living records of the failure of every other rational plan and of many irrational ones; it is because many of them find no place in the text book, however sadly familiar they are to the physician.
>
> The group I would speak of contains that large number of people who are kept meagre and often also anaemic by constant dyspepsia, in its varied forms, or by those defects in assimilative processes which, while more obscure, are as fertile parents of similar mischiefs. Let us add the long-continued malarial poisonings, and we have a group of varied origin which is a moderate percentage of cases in which loss of weight and loss of color are noticeable, and in which the usual therapeutic methods do sometimes utterly fail. For many of these, fresh air, exercise, change of scene, tonics and stimulants are alike valueless; and for them the combined employment of the tonic influences I shall describe, when used with absolute rest,

massage and electricity, is often of inestimable service.

A portion of the class last referred to, and which I have yet to describe, is one I have hinted at as the despair of the physician. It includes that large group of women, especially, said to have nervous exhaustion, or who are defined as having spinal irritation, if that be the prominent symptom. To it I must add cases in which, besides the wasting and anaemia, emotional manifestations predominate, and which are then called hysterical, whether or not they exhibit ovarian or uterine disorders.

Nothing is more common in practice than to see a young woman who falls below the health-standard, loses color and plumpness, is tired all the time, by and by has a tender spine, and soon or late enacts the whole varied drama of hysteria. As one or other set of symptoms is prominent she gets the appropriate label, and sometimes she continues to exhibit only the single phase of nervous exhaustion or of spinal irritation. Far more often she runs the gauntlet of nerve-doctors, gynaecologists, plaster jackets, braces, water-treatment, and all the fantastic variety of other cures.

It will be worth while to linger here a little and more sharply delineate the classes of cases I have just named. I see every week—almost every day—women who when asked what is the matter reply, 'Oh, I have nervous exhaustion.' When further questioned, they answer that everything tires them. Now, it is vain to speak of all of these cases as hysterical, or as merely mimetic. It is quite sure that in the graver examples exercise quickens the pulse curiously, the tire shows in the face, or sometimes diarrhoea or nausea follows exertion, and though while under excitement or in the pressure of some dominant motive they can do a good deal, the exhaustion which ensues is out of proportion to the exercise used. I have rarely seen such a case which was not more or less lacking in color and which had not lost flesh; the exceptions being those troublesome instances of fat anaemic people which I shall by and by speak of more fully.

SAVILL AND HAMMOND

Neurasthenia appeared in every textbook of nervous disease, and Savill(40), writing in 1892, gives a bibliography of over 125 titles. There were those who resisted the concept of neurasthenia. Among these was William A. Hammond(41). Hammond was a man of distinction and prestige, having been Surgeon General of the United States Army during the Civil War and professor of diseases of the mind and nervous system at the Medical University of the City of New York. Therefore he spoke with great authority when he attributed many of the conditions called neurasthenia to cerebral hyperæmia in his book published in 1878. He says in the Preface:

The disease which is considered in the ensuing pages is more common, according to my experience, than any other affection of the nervous system. It is especially an outgrowth of our civilization, and of that restless spirit of enterprise and struggle for wealth so characteristic of the American people. It is an easily preventable disorder, not for this purpose requiring extensive hygienic operations, but simply the acts of the individual in using his or her brain with the same regard for its well-being as is ordinarily extended by the humane carter to the muscular system of his horse. The brain of man is strong: it will endure a terrible amount of ill usage; but there are limits to the abuse which may be inflicted upon it with impunity, and few there be who do not pass them.

It is, perhaps, too much to expect the emotions to be entirely under the control of the individual, nor is it desirable that we should be reduced to the condition of intellectual automata, moved always by reason and judgment and never by feeling. But it is entirely within the power of every one, by that selfdiscipline so seemly in all, to obtain such a degree of mastery over unworthy or excessive passions, as will prevent them dominating over the whole mind and body to the detriment of both.

Ill-regulated emotions are even more prolific of brain disorders than severe mental labor, and many a person considered to be suffering from what is called nervous prostration or exhaustion, is simply the subject of emotional disturbance and a consequent condition of cerebral hyperaemia.

The last few years have witnessed the death of many distinguished persons from the direct results of excessive brainwork, or the passional excitement so commonly produced in men and women by the multitude of causes in operation upon them. In the hope, that what I have written may tend to the prevention or alleviation of suffering, I send out this little monograph.

He concedes his inability to prove cerebral hyperæmia, but gives a lot of data in its support and also quotes many other authors who support his belief. However, cerebral hyperæmia never became a real rival of neurasthenia.

BROWER

The concept of auto-intoxication, however, was developed extensively. Daniel R. Brower(42), in 1898, says:

We are at the beginning of a new era in the pathogenesis and treatment of the neural diseases. The discovery of the neuron has resulted in making clear some of the dark passages in physiology and pathogenesis, and the dynamic changes produced in these neurons by alcohol and other extrinsic poisons, that have been so marvelously

demonstrated by Andriezen, Van Gieson and others, and the reasonable inference that intrinsic poisons are equally powerful in establishing pathologic conditions, open up a new line of important therapeutic investigation.

He gives a great deal of chemical data and concludes as follows:

Conclusions. 1. Some of the nervous diseases are the product of auto-intoxication.

2. This autotoxis produces a parenchymatous degeneration of the nervous system, acute or chronic, that may result in the destruction of the structure and function of the nerve cells. (Van Gieson and Andriezen.)

3. The peculiar arrangement of the lymph channels in the nervous system makes auto-intoxication of the brain possible by the blocking of these channels.

4. The principal factor in this autotoxis is a disordered gastro-intestinal tract.

5. Gastrectasis, intestinal dyspepsia and coprostasis are ordinary conditions producing gastro-intestinal intoxication.

6. The diagnosis is to be made: (a) by a regional examination; (b) by examination of the gastric contents; and (c) by examination of the urine.

7. The urines will show increased amounts of indican, diminished total sulphates, and an increase in the amount of ethereal or conjugate sulphates.

8. There will also be found, usually in consequence of this autotoxis, a diminished hemoglobin record and a diminished number of red blood corpuscles.

9. The treatment should consist of lavage, enteroclysis, gastric and intestinal antiseptics, laxatives and hematinics.

As is well known, this ultimately led to removal of the colon in certain cases.

BILLINGS AND SALMON

Close upon the heels of auto-intoxication came the focal infection theory, well set forth by Frank Billings(43) in 1916. The improvement of anesthesia and the development of asepsis had allowed the surgeons a freedom of action never before dreamed. Whatever the neurologists and psychiatrists might say, pain and mal-function, to the rank and file of the medical profession, were visceral diseases. Fortified by concepts of auto-intoxication and focal infection, the surgeon ruthlessly attacked his patients. The uterus, no longer a little animal running about the body causing trouble, was a possible source of infection, and so the whole superstition was rationalized again and the uterus fell a victim to the efficacy of modern surgery and the lack of complete understanding of functional nervous disease. The large intestine, the appendix, gallbladder, tonsils, teeth, fell before the onrushing belief in focal infection. As late as 1924 Thomas W. Salmon(44) says:

Just what form of physical disease the psychoneurosis is transformed into depends upon the direction of medical interest at the time. Uterine displacements, impacted molars and endocrine disorders have all served their turn.

TIMME

Contemporary with focal infection came endocrine imbalance. The ductless gland lent itself readily to mysticism and speculation and, beautifully aided and abetted by manufacturing pharmacists, the ox and the sheep were exploited in what now appears to have been but a forlorn hope. The work of Walter Timme(45) is typical and perhaps represents the high tide of the belief that endocrine imbalance was basic in causing functional nervous disease.

We have now reached the period of the full impact of the Freudian dogma, which is not history but contemporary thought. In the sixties and seventies, spear-pointed by the work of Charcot in France, there grew up a vigorous and lusty offshoot of medicine concerning itself with the psychic manifestations of nervous disease. This developed with little regard for the fundamental facts of internal medicine and had little effect upon the great body of medical thought and practice. The doctor, representative of the common man, still considered nervous manifestations as visceral disease and attacked such diseases, as of old, with such surgical and medical procedures as the philosophy of the time indicated. There was, in fact, a dichotomy in thought and practice.

I shall not attempt to even review the development of psychogenesis, psychopathology or psychotherapy, as these matters are not pertinent to the history. In fact, it may safely be assumed that the psychiatrists of today are familiar with these comparatively recent developments. However, in order to complete the perspective, it seems well to add a word about present-day trends.

Within the last few years studies have been made of the social situation of persons with functional nervous disease. The work

of Walter C. Alvarez(46-48) and his associates at the Mayo Foundation(49, 50) is characteristic. Finally, the term "psychosomatic medicine" represents the most modern development. Beginning with the epoch-making contribution of Walter B. Cannon(51), more and more attention has been given to this subject, both on the part of internists and psychiatrists. The literature is vast, but the work of Myerson(52) and of Pratt(53) is typical. It has been well summarized by Dunbar(54) in *Emotions and Bodily Changes: A Survey of Literature on Psychosomatic Relationships, 1910-1933* (2d. edition, 1938).

SUMMARY

In perspective it is obvious that a relationship between psyche and soma has been observed during the whole history of medicine. Until well within the last one hundred years no one conceived of nervousness in terms other than visceral disease. During the past hundred years there has been increasing emphasis upon the importance of psychological manifestations of illness until, at the high point of this interest the soma was almost forgotten. The tide has receded until now the interest is in the interrelations of physical and mental factors. The difference is that early physicians thought in terms of visceral disease as causing nervous manifestation, while today we have reversed the trend and think of visceral disorder in terms of nervous disease.

Reflection upon the history of medical thought may be profitable. The best minds of medicine have struggled with these disorders and contemporary fashion has been accepted as ultimate truth. The excellent descriptions show powers of observation of the highest quality, but the interpretation and the treatment are entirely matters of contemporary philosophy. To quote Lecky:

> The doctrine, that the opinions of a given period are mainly determined by the intellectual condition of society, and that every great change of opinion is the consequence of general causes, simply implies that there exists a strong bias which acts upon all large masses of men, and eventually triumphs over every obstacle. The inequalities of civilisation, the distorting influences arising out of special circumstances, the force of conservatism, and the efforts of individual genius, produce innumerable diversities; but a careful examination shows that these are but the eddies of an advancing stream, that the various systems are being all gradually modified in a given direction, and that a certain class of tendencies appears with more and more prominence in all departments of intellect.

Nervous exhaustion, anemia, cerebral hyperemia, auto-intoxication, focal infection, glandular dysfunction, and psychogenesis have their day and then disappear except as matters of medical curiosity. This should lead us to a cautious, temperate and critical evaluation of present-day thought, in order that we may avoid, through excessive confidence, belief that the last hypothesis represents the ultimate truth.

BIBLIOGRAPHY

1. Frazer, Sir James George. The Golden Bough: A Study in Magic and Religion. New York: The Macmillan Co., 1923.

2. Sumner, William G. Folkways: A Study of the Sociological Importance of Usages, Manners, Customs, Mores, and Morals. Boston: Ginn & Co., 1940.

3. Gardiner, H. M., Metcalf, R. C., and Beebe-Center, J. G. Feeling and Emotion: A History of Theories. New York: American Book Co., 1937.

4. Spencer, Herbert. The Study of Sociology. New York and London: D. Appleton & Co., 1910.

5. Adams, Francis. The Genuine Works of Hippocrates Translated from the Greek with a Preliminary Discourse and Annotations. New York: William Wood & Co., 1929.

6. Galen. The Works of Galen, translated by Kuhn (20 vols., 1821-1833), Vol. 16, pp. 177 and 413.

7. Celsus. *De Medicina*, With an English Translation by W. G. Spencer. 2 vols. Cambridge: Harvard University Press; London: William Heinemann, Ltd., 1935. Vol. 1, pp. 447, 449, 451.

8. Sydenham, Thomas. Epistolary Dissertation to Dr. William Cole on Recent Observations Upon the Care of Confluent Small-Pox and on the Hysterical Affections, January 1681-82.

9. Willis, Thomas. The London Practice of Physick: Or the Whole Practical Part of Physick Contained in the Works of Dr. Willis. Faithfully made English, and Printed together for the Publick Good. London: Printed for Thomas Basset and William Crooke, 1685, p. 48.

10. *Idem.* A Medical Philosophical Discourse of Fermentation or, of the Intestine Motion of Particles in Every Body. London: H. Clark, 1680, pp. 43, 69, 81, 109.

11. Purcell, John. A Treatise of Vapours, or Hysterick Fits, Containing An Analytical Proof of its Causes, Mechanical Explanations of all its Symptoms and Accidents, according to the newest and most Rational Principles: Together with its

Cure at large. London: Nicholas Cox, 1702, pp. 10, 19, 24, 43, 44, 155.

12. Cheyne, George. The English Malady, Or, A Treatise of Nervous Diseases of All Kinds, As Spleen, Vapours, Lowness of Spirits, Hypochondriacal, and Hysterical Distempers, etc. London: G. Strahan; Bath: J. Leake, 1733. Preface, pp. 181, 183.

13. Dovar, Thomas. The Ancient Physician's Legacy To His Country, Being What He Has Collected in Forty-Nine Years Practice: Or An Account of the Several Diseases incident to Mankind, in so plain a Manner, that any Person may know the Nature of his own Distemper, and the several Remedies proper for it, wherein the extraordinary Effects of Mercury are more particularly consider'd. London: Printed for the Relict of the late R. Bradley, 1733, p. 42.

14. Flemyng, Milcolumbo. Neuropathia: Sive De Morbis Hypochondriacis et Hystericis, Libri Tres, Poema Medicum, Cui Praemittitur Differtatio Epistolaris profaica ejusdem Argumenti. Eboraci: Excudebant Caesar Ward, et Ricardus Chandler, Sumptibus Autoris, 1740.

15. Whytt, Robert. Observations on the Nature, Causes, and Cure of those Disorders which have been commonly called Nervous, Hypochondriac, or Hysteric: To which are prefixed some Remarks on the Sympathy of the Nerves. Second edition. London: T. Becket and P. A. DeHondt; Edinburgh: J. Balfour, 1765. Preface, pp. 60, 380.

16. Musgrave, Samuel. Speculations and Conjectures on the Qualities of the Nerves. London, 1776. Introduction.

17. Tissot. Oeuvres de Tissot. Edition publiée par le Professeur Hallé. Traité des Nerfs et de leurs Maladies; Historia Febris Epidemicae Biliosae Lausannensis Anni 1755; l'Onanisme: Observations et Dissertations de Medecine Pratique. Traduites par Vicat, etc. Paris: Adolphe Delahays, 1855.

18. Cullen, William. First Lines of the Practice of Physic. New and Improved Edition, 2 vols. in 1. Brookfield: E. Merriam & Co., 1807, pp. 438, 439, 532.

19. Parkinson, James. Medical Admonitions to Families. Portsmouth, New Hampshire, 1803.

20. Trotter, Thomas. A View of the Nervous Temperament: being a Practical Inquiry into the Increasing Prevalence, Prevention, and Treatment of those Diseases commonly called Nervous, Bilious, Stomach & Liver Complaints: Indigestion: Low Spirits, Gout, etc. Troy, N. Y.: Wright, Goodenow, & Stockwell, 1808, pp. 80; 199-201.

21. Georget. De la Physiologie du Système Nerveux et Specialement du Cerveau: Recherches sur les Maladies Nerveuses en Général et en particulier sur le siege, la nature et le traitement de l'hystérie, de l'hypochondrie, de l'epilepsie et de l'asthme convulsif. 2 vols. Paris: J. B. Baillière, 1821, pp. 196, 250.

22. Barras, J. P. T. Traité sur les Gastralgies et les Entéralgies, ou Maladies Nerveuses de l'Estomac et des Intestins. 3rd edition, Paris & Bruxelles, 1829, pp. 5, 17-19.

23. Dubois, E. Frederic. Histoire Philosophique de l'Hypochondrie et de l'Hysterie. Paris: Deville Cavellin, 1833.

24. Reid, John. Essays on Hypochondriasis and Other Nervous Affections. 3rd edition. London: Longman, Hurst, Rees, Orme, and Brown, 1823, p. 20.

25. Brodie, Sir Benjamin C. Lectures Illustrative of Certain Local Nervous Affections. London: Longman, Rees, Orme, Brown, Green & Longman, 1837, p. 2.

26. Axenfeld. Des Névroses. Paris; Germer Bailliere, 1864.

27. Channing, Walter. Bed Case: Its History and Treatment. Boston: Ticknor and Fields, 1860.

28. Graham, James. A Short Inquiry into the Present State of Medical Practice in Consumptions, Asthma, Gout in the Head or Stomach, Hysterical, Spasmodic or Paralytic Affections of the Nerves, in Every Species of Nervous Weakness and in Cancers and Other Obstinate Ulcers; and a More Elegant, Speedy and Certain Method of Cure by Means of Certain Chemical Sciences; and Aerial, Etherial, Magnetic and Electric Vapours, Baths and Applications Recommended; to which is added an appendix on the Management of Diseases of the Teeth and Gums. London: F. Newberry, 1776. 22 pages.

29. Birch, John. An Essay on the Medical Application of Electricity. London: J. Cundee, 1802.

30. Yatman, Matthew. A Familiar Analysis, of the Fluid Capable of Producing the Phenomena of Electricity and Galvanism; or Combustion, with some Remarks on Simple Galvanic Circles and their Influence upon the Vital Principle of Animals. Illustrated by the theories and experiments of Galvani, Garnet, Davy, Young, Thomson, etc., etc. London: G. Hayden, 1810.

31. Hare, Robert. A New Theory of Galvanism, supported by some experiments and observations made by means of the Calorimotor, a new Galvanic Instrument, also, a New Mode of Decomposing Potash extemporaneously. Philadelphia: M. Carey & Son, 1819.

32. Beard, G. M., and Rockwell, A. D. The Medical Use of Electricity, With Special Reference to General Electrization As a Tonic in Neuralgia, Rheumatism, Dyspepsia, Chorea, Paralysis, and Other Affections Associated with General Debility. New York: William Wood & Co., 1867.

33. *Idem.* Neurasthenia, Or Nervous Exhaustion. Boston Med. & Surg. J., 3: 217-221, April 29, 1869.

34. Cowles, Edward. Neurasthenia and Its Mental Symptoms. Shattuck Lecture, Read before the Massachusetts Medical Society, June 9, 1891. Pamphlets on Neurasthenia, No. VIII.

35. Levillain. La Neurasthenie, 1891. Cited in article on Neurasthenia by James J. Putnam. Pamphlets on Neurasthenia, No. XI.

36. Knapp, P. C. Neurasthenia. Boston Med. & Surg. J., 1896, p. 407.

37. Putnam, James J. Neurasthenia. Pamphlets on Neurasthenia, No. XI.

38. Prince, Morton. The Educational Treatment of Neurasthenia and Certain Hysterical States.

Read at the Annual Meeting of the Massachusetts Medical Society, June 8, 1898. Pamphlets on Neurasthenia, No. X.

39. Mitchell, S. Weir. Fat and Blood: An Essay on the Treatment of Certain Forms of Neurasthenia and Hysteria. Philadelphia: J. B. Lippincott Co., 1888.

40. Savill, Thomas D. Clinical Lectures on Neurasthenia. New York: William Wood & Co., 1902.

41. Hammond, Wm. A. Cerebral Hyperaemia, the Result of Mental Strain or Emotional Disturbance. New York: G. P. Putnam's Sons, 1878.

42. Brower, Daniel R. Auto-Intoxication in its Relations to the Diseases of the Nervous System. J. A. M. A. **30**:575-577, March 12, 1898.

43. Billings, Frank. Focal Infection. New York: D. Appleton & Co., 1916.

44. Salmon, Thomas W. Mind and Medicine. New York: Columbia University Press, 1924, p. 9.

45. Timme, Walter. Cited by H. Flanders Dunbar in *Emotions and Bodily Changes: A Survey of Literature on Psychosomatic Relations, 1910-1933*. 2nd edition, 1938.

46. Alvarez, Walter C. Nervous Indigestion. New York: Paul B. Hoeber, 1931.

47. *Idem*. Dyspepsia—Organic, Reflex, and Functional. Proc. Inter-State Postgraduate Med. Assembly of N. America (October 18-22, 1937), 1938.

48. *Idem*. Functional Disturbances of Digestion. Med. Clin. N. America, **22**: 1045-1057, July 1938.

49. Rivers, Andrew B., and Mendes Ferriera, A. E. Incidence and Causes of Chronic Dyspepsia at Various Ages: An Analysis of 4,223 Cases. J. A. M. A., **110**: 2132-2136, June 25, 1938.

50. Wakefield, E. G., and Mayo, Charles W. Functional Or Sociologic Disorders of the Colon. J. A. M. A., **111**: 1627-1632, October 29, 1938.

51. Cannon, Walter B. The Role of Emotion in Disease. Annals Int. Med., 9: 1453-1465, May 1936.

52. Myerson, Abraham. The Social Conditioning of the Visceral Activities. New Eng. J. Med., **211**: 189-192, August 2, 1934.

53. Pratt, Joseph H. The Influence of Emotions in the Causation and Cure of Psychoneuroses. Internat. Clin., **4** (Series 44): 1-16, December 1934.

54. Dunbar, H. Flanders. Emotions and Bodily Changes: A Survey of Literature on Psychosomatic Relationships, 1910-1933. 2nd edition, 1938.

THE GENETIC THEORY OF SCHIZOPHRENIA

An Analysis of 691 Schizophrenic Twin Index Families[1]

FRANZ J. KALLMANN, M.D., New York, N. Y.

Despite notable changes in the attitude of contemporary psychiatry toward the constitutional problems of psychosomatic medicine, there is still a tendency to perpetuate the genetic theory of schizophrenia as a controversial issue.

Some arguments thrive largely on dialectic grounds and, from a scientific standpoint, are more apparent than real. Others are based on preconceptions which are kept alive by an ambiguous terminology and the pardonable tendency either to oversimplify a complex causality or to mistake it for obscurity. A main source of misunderstanding is the erroneous belief that acceptance of causation by heredity would be incompatible with general psychological theories of a descriptive or analytical nature, or that it might lead to a depreciation of present educational and therapeutic standards. Evidently, there is no point in presenting evidence of the inheritance of schizophrenia, if in subsequent statements the etiology of schizophrenic psychoses is likely to be listed as unknown, or if reservations are made regarding a similar psychotic syndrome labeled dementia præcox, or if the given genetic mechanism is finally dismissed as unessential or non-Mendelian.

From a genetic point of view, the main question to be clarified is whether or not the capacity for developing a true schizophrenic psychosis is somehow controlled by inherited, predispositional elements. In order to settle this problem beyond any reasonable doubt, only three types of investigative procedure are available. They are:

(1) The pedigree or family history method,
(2) The contingency method of statistical prediction, and
(3) The twin study method.

The investigation of individual *family histories* is the oldest, simplest, and most popular method of recording familial occurrence of an apparently hereditary trait. Such a pedigree is often impressive to behold and sometimes as suggestive of the operation of heredity as is true with respect to the family unit[2] presented in Fig. 1. If the mating of two psychotic parents is found, under certain circumstances, to be capable of giving rise to seven definite cases of schizophrenia among the offspring, that is, in all the children of this union who reached the age of maturity, it would seem inadequate to disregard the possible significance of the biological factor prerequisite for inheritance, namely, consanguinity. On the basis of this single observation, however, the genetic hypothesis would be no more conclusive than either the assumption of *folie à neuf* due to "psychic contagion" or the supposition that the psychosis of the father of this remarkable sibship was not "inherited" because his parents had apparently been ordinary first cousins without schizophrenia.

Obviously, the general usefulness of the pedigree method is limited to the study of relatively rare unit characters which are easily traced and fairly constant in their clinical appearance. In more common traits and especially in irregularly expressed anomalies such as schizophrenia, it is necessary to employ statistical methods which demonstrate more clearly the effect of blood relationship.

This objective is accomplished by the *contingency method,* which compares the morbidity rates for representative samples of consanguineous and non-consanguineous groups. The results of such a procedure will

[1] Read at the 102d annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

From the Department of Medical Genetics of the New York State Psychiatric Institute and Hospital, New York 32, N. Y.

[2] The investigation of this family was carried out in collaboration with Miss Jean Mickey. The psychiatric aspects of this study will be discussed in another publication. As all the other charts and tabulations, the pedigree was arranged by Mrs. Helen Kallmann.

indicate whether or not a given anomaly occurs more frequently in blood relatives of unselected index cases than is to be expected in the light of the normal average distribution of the trait in the general population. The available morbidity figures for schizophrenia, obtained with the contingency method, are summarized in Fig. 2. The rates refer to different population and consanguinity groups and may have been compiled with different degrees of statistical accuracy. The samples differ in size as well as in uniformity, and many of them seem to have lived under socio-economic conditions which cannot be compared directly.

However, one essential point has been confirmed by all of these studies, namely, that the incidence of schizophrenia tends to be higher in blood relatives of schizophrenic index cases than it is in the general population. Concerning the offspring of schizophrenic index cases it has been shown that their morbidity rates range from 16.4 to 68.1 per cent, that is, from nineteen to about eighty times average expectancy, according to whether one or both of their parents are

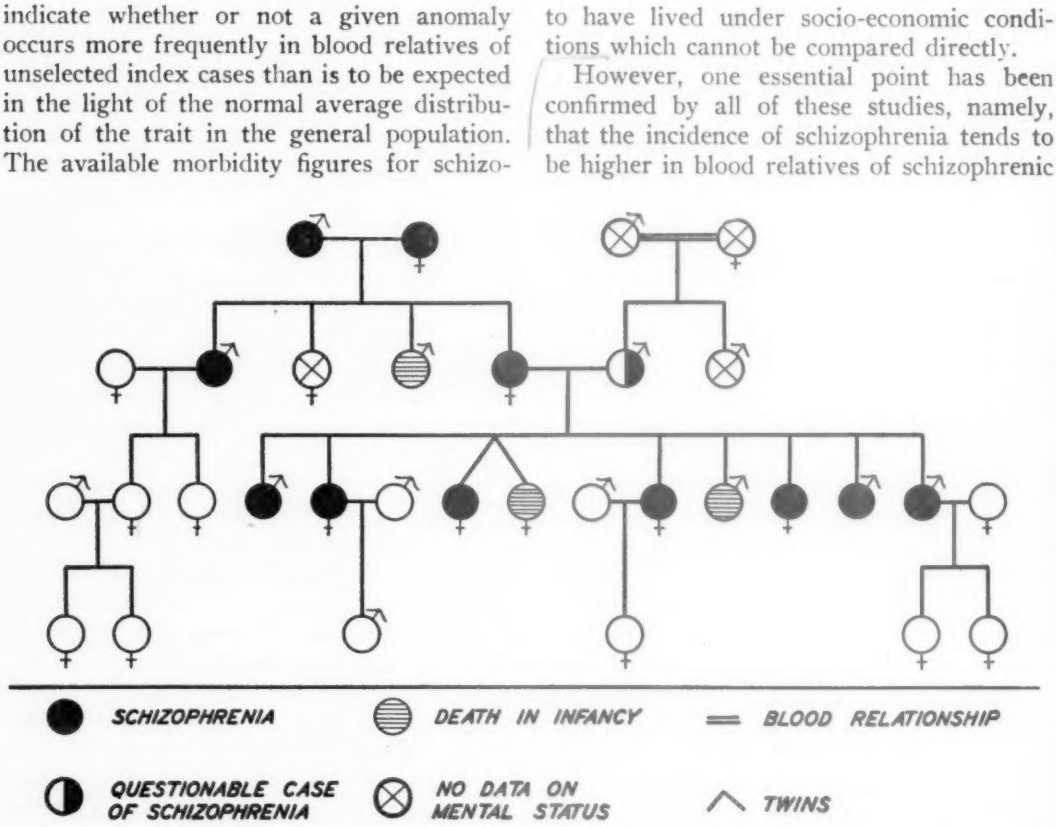


FIG. 1.—Pedigree of a family showing unusual accumulation of schizophrenic cases.

	INCIDENCE OF SCHIZOPHRENIA IN GENERAL POPULATION	INCIDENCE OF SCHIZOPHRENIA IN CONSANGUINEOUS GROUPS RELATED TO:										
		ONE ORDINARY INDEX CASE OF SCHIZOPHRENIA							TWO ORDINARY INDEX CASES		ONE TWIN INDEX CASE	
		NEPHEWS AND NIECES	FIRST COUSINS	GRAND-CHILDREN	HALF SIBLINGS	PARENTS	FULL SIBLINGS	CHIL-DREN	SIBLINGS	CHIL-DREN	DI-ZYGOTIC CO-TWINS	MONO-ZYGOTIC CO-TWINS
PREVIOUS MORBIDITY STUDIES OF KALLMANN	.85	3.9	–	4.3	7.6	10.3	11.5	16.4	20.5	68.1	12.5	81.7
RANGE OF MORBIDITY RATES OF OTHER INVESTIGATORS	.3 – 1.5	1.4 – 3.9	2.6	–	–	7.1–9.3	4.5–11.7	8.3–9.7	20.0	53.0	14.9	68.3

FIG. 2.—Schizophrenia rates obtained with the contingency method of statistical prediction.

schizophrenic (Fig. 3). It is to be verified, therefore, that the chance of developing schizophrenia in comparable environments increases in direct proportion to the degree of blood relationship to a schizophrenic index case. If such evidence can be supplied, intransigent supporters of purely environmental theories should be expected to demonstrate with equally precise methods that a consistent increase in morbidity is found associated with particular environmental circumstances *in the absence* of consanguinity.

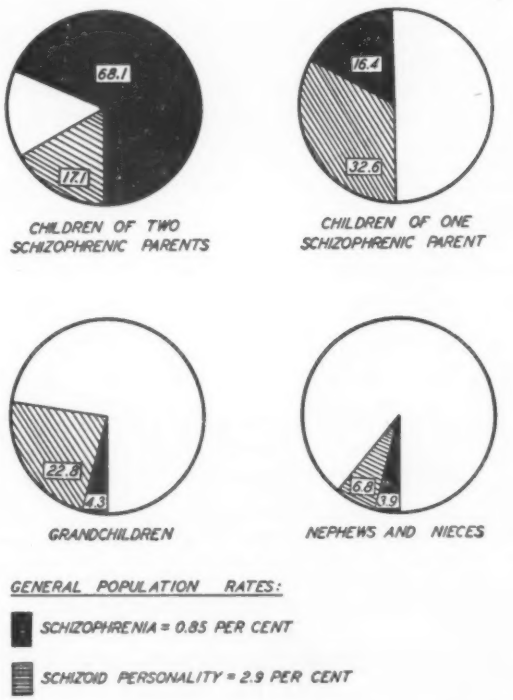


FIG. 3.—Expectation of schizophrenia and schizoid personality in descendants of schizophrenics.

In order to establish the hereditary nature of a psychosis beyond the possibility of random contingency and in relation to the interaction of predispositional genetic elements and various precipitating or perpetuating influences acting from without, the best available procedure is the *twin study method* in conjunction with an ordinary sibling study. Such a combination method[8] has been adopted in our long-range studies of specific behavior disorders and has been called by us "Twin Family Method" (Fig. 4). This approach provides six distinct categories of sibship groups reared under comparable environmental conditions; namely, monozygotic twins, dizygotic twins of the same sex, dizygotic twins of opposite sex, full siblings, half-siblings, and step-siblings. If the assumed genetic factor exists and the part played by the twinning factor is negligible, the statistical expectation will be that the morbidity rates for full siblings and dizygotic twin partners should be about the same, but they should clearly differ from the rates for the other sibship groups.

One-egg twins are expected to show the highest concordance rate for a genetically

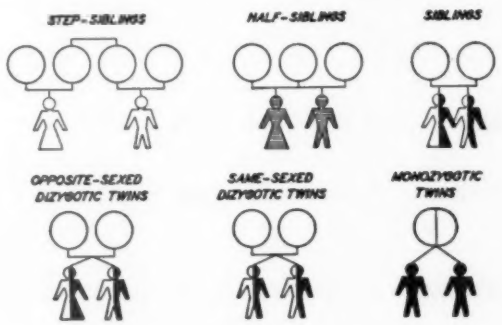


FIG. 4.—Degree of consanguinity in twin family method.

determined disorder, even if brought up in different environments. Two-egg twins may be either of the same or of opposite sex, but genetically they are no more alike than any other pair of brothers and sisters who are born at different times. Half-siblings with only one parent in common should be about midway between the full siblings and the non-consanguineous step-siblings, if the given morbidity depends on the closeness of blood relationship rather than on the similarity in environment.

In order to obtain statistically representative material for the application of this method, our survey was organized on a statewide basis. The twin index cases (Fig. 5) were collected from the resident populations and new admissions of all mental hospitals under the supervision of the New York State Department of Mental Hygiene. The dan-

[8] A more detailed description of the method can be found in a previous report of F. J. Kallmann and D. Reisner, "Twin Studies on Genetic Variations in Resistance to Tuberculosis," Journal of Heredity, Vol. 34, No. 9.

ger of bias on account of technical selective factors in the sampling of the material was avoided by referring the determination of the twin index cases to the staffs of the hospitals cooperating in the survey. The only criteria for selection were that the reported cases be born by multiple birth and that they had been admitted with a diagnosis of mental disease.

The classifications of both schizophrenia and zygocity were made on the basis of personal investigation and extended observation. The twin diagnosis was based on findings obtained with the similarity method, since it is known now that monozygotic twins are not necessarily monochorial. The statistical analysis was limited to the families of 794 schizophrenic twin index cases whose cotwins were available for examination at the age of fifteen years. These index cases were reported within a period of nine years by twenty institutions, which in 1945 had a total resident population of 73,252 patients with 47,929 schizophrenics and 12,316 new admissions.

The random sampling of the 691 index pairs is indicated by the close correspondence between the statistically expected figure of 25.6 percent for the proportion of monozygotic twin pairs in an unselected American twin group, and the actual percentage of 25.2 as obtained with the Weinberg Differential Method for the present study. It is in accordance with expectation that the main deficit is on the part of dizygotic twins of opposite sex. Altogether, there are 174 monozygotic and 517 dizygotic index pairs with schizophrenia in at least one member or, more precisely, 691 pairs constituted by 1,382 twins, of whom 794 were legitimate index cases. Of the dizygotic sets, 296 are same-sexed and 221 are opposite-sexed.

The excess of female over male index cases is almost 20 percent. The ratio of white to non-white index cases is about 14:1. Approximately 70 percent of the index cases are unmarried. The proportion of nuclear cases, characterized by hebephrenic or catatonic psychoses with the tendency to progression and deterioration, amounts to 68 percent.

The various groups of relatives included in the analysis of these 691 twin index families are identified in Fig. 6. There are 1,382 twins, 2,741 full siblings, 134 half-siblings, 74 step-siblings, 1,191 parents and 254 marriage partners of twin patients, making a total of 5,776 persons who have been uniformly classified according to their mental, social and genealogical conditions.

The collective schizophrenia rates for the different relationship groups are compared in Fig. 7. The variations in age distribution have been corrected by the use of the "Abridged Weinberg Method." The resulting morbidity rates are average expectancy figures valid for persons above the chief manifestation period, which in this study was assumed to extend from the age of fifteen to forty-four.

Regardless of whether the uncorrected or corrected rates are taken into account, they

	All schizophrenic twin index cases reported *							All complete index pairs studied †			
	Marital status		Racial distribution		Diagnostic distribution			Dizygotic			
	Single	Married	White	Non-white	Nuclear	Peripheral	Total number	Monozygotic	Same sex	Opposite sex	Total number
Male	292	70	337	25	253	109	362	75	132	221 2	317½
Female	266	166	405	27	290	142	432	99	164	221 2	373½
Total number	558	236	742	52	543	251	794	174	296	221	691

* Without index cases whose cotwins were unavailable at the age of 15 years.

† The difference between 794 index cases and 691 index pairs is explained by the fact that in 103 pairs both twin partners were reported as index cases and acceptable as such.

FIG. 5.—Racial and diagnostic distribution of the twin index cases.

are in definite accordance with genetic expectation regarding both schizophrenia and schizoid personality. The corrected schizophrenia rate for full siblings amounts to 14.3 percent, corresponding closely with the collective concordance rate for dizygotic twin pairs (14.7 percent), although it clearly exceeds the rate for half-siblings (7.0 percent). A comparison with our previous sibship figures reveals only minor variations which seem sufficiently explained by the different sampling procedures of sibship and descent studies. Our previous schizophrenia rates were 7.6 percent for half-siblings, 11.5 percent for full siblings, and 12.5 percent for dizygotic cotwins.

The newly obtained morbidity figures for step-siblings and marriage partners of schizophrenic index cases are 1.8 and 2.1 percent, respectively, showing a small excess over the general population rate of 0.85 percent. So far as this excess is statistically significant, it is referable to the effect of mate selection rather than an expression of socially induced insanity.

By contrast, the difference in concordance between two-egg and one-egg twin partners ranges from 14.7 to 85.8 percent. An almost equally striking difference remains, if the comparison is limited to the groups of same-sexed dizygotic and separated monozygotic twin pairs (Fig. 8). Their morbidity rates vary from 17.6 to 77.6 percent, and this difference is still so pronounced that explanations on non-genetic grounds are very difficult to uphold. The total morbidity distribution as summarized in Fig. 8 is a rather clear indication that the chance of developing schizophrenia increases in proportion to the degree of consanguinity to a schizophrenic index case. The only other syndrome showing a significant increase in the index families is that of schizoid personality changes, whose genetically heterogeneous nature has been discussed in previous reports.

Concerning the total morbidity rate of 85.8 percent for monozygotic cotwins it should be borne in mind that the figure expresses the chance of developing schizophrenia in a comparable environment for any person that has survived the age of forty-four and is genetically identical with a schizophrenic index case, but is not distinguished by the fact of having been selected as the child of such an index case. The last point needs particular emphasis, since it apparently explains the difference between the morbidity rates of 68.1 and 85.8 per-

	Twins	Full siblings	Half-siblings	Step-siblings	Parents	Husbands and wives of index cases	Total number
Living	1,198	1,682	84	47	618	221	3,850
Dead	184	1,059	50	27	573	33	1,926
Total number	1,382	2,741	134	74	1,191	254	5,776

FIG. 6.—Number and relationship of the persons included in the survey.

		Relationship to schizophrenic twin index cases						
		Parents	Husbands and wives	Step-siblings	Half-siblings	Full siblings	Dizygotic cotwins	Monozygotic cotwins
Statistically uncorrected rates	Number of persons	1191	254	85	134	2741	517	174
	Cases of schizophrenia	108	5	1	4	205	53	120
	Incidence of schizophrenia *	9.1	2.0	1.4	4.5	10.2	10.3	69.0
Corrected morbidity rates	Schizophrenia †	9.2	2.1	1.8	7.0	14.3	14.7	85.8
	Schizoid personality	34.8	3.1	2.7	12.5	31.5	23.0	20.7

* Related to all cases of schizophrenia and to all persons over age 15.

† Related only to definite cases of schizophrenia and to half of the persons in the age group 15-44 (plus all persons over age 44).

FIG. 7.—Incidence of schizophrenia and schizoid personality in the twin index families.

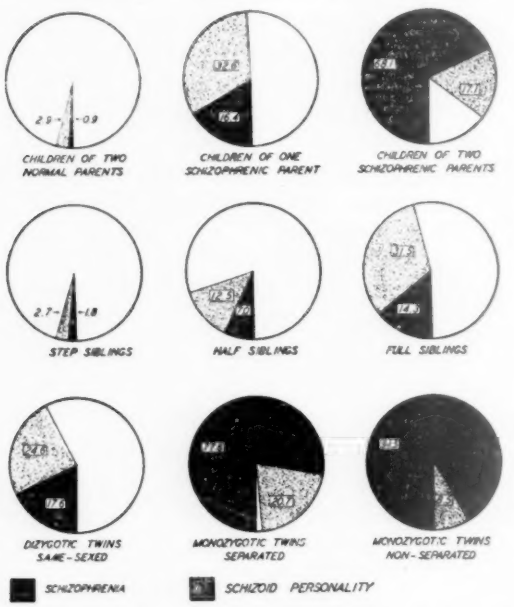


FIG. 8.—Expectancy of schizophrenia and schizoid personality in blood relatives of schizophrenic twin index cases.

schizophrenics must have had a chance of getting married and producing offspring.

According to our previous fertility studies (Fig. 9), the total reproductive rate of schizophrenic index cases is not more than about half that of a comparable general population. However, the decrease in fertility is much more pronounced in the nuclear group of schizophrenia, comprising the deteriorating types of hebephrenia and catatonia, than it is in the paranoid and simple cases. The consequence is that milder schizophrenic cases have a better chance of reproducing a schizophrenic child than have the more severe cases. If the children of one schizophrenic parent will often be the offspring of patients with lessened severity of their symptoms, the children of two schizophrenic parents may be expected to represent an even greater selection of potential schizophrenics in the direction of a highly resistant constitution. Obviously, such a process of natural selection does not

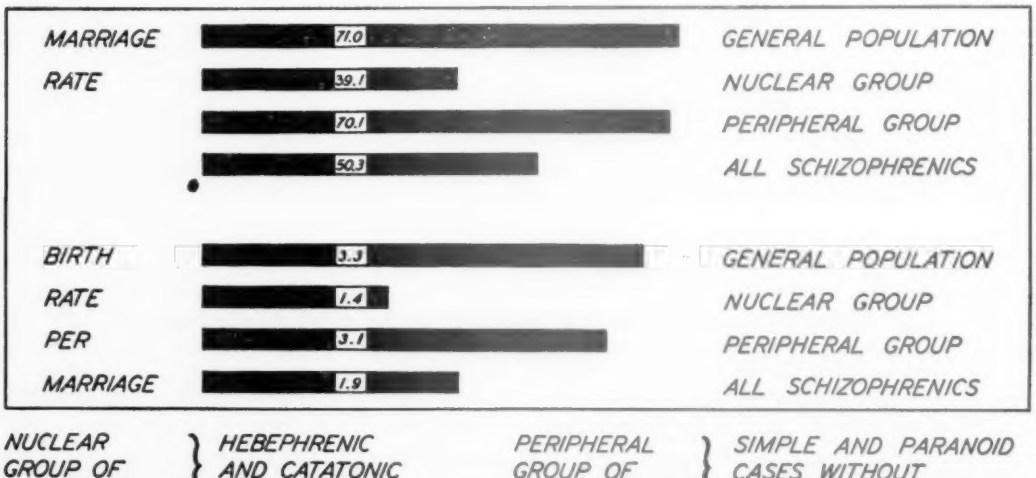


FIG. 9.—Marriage and birth rates of schizophrenic hospital patients.

cent as found for the children of two schizophrenic parents and for the monozygotic cotwins of schizophrenic index cases, respectively. In fact, it is only by a comparison of these two figures that a satisfactory estimate can be obtained of the extent of biased sampling in a morbidity study dealing with children of schizophrenic index cases. In order to provide such a sample, operate in persons who have only the distinction of being the monozygotic cotwins of schizophrenic twin index cases.

Clinically it is very important that neither the offspring of two schizophrenic parents nor the monozygotic cotwins of schizophrenic index cases have a morbidity rate of 100 percent as would be expected theoretically in regard to a strictly hereditary trait. This

observation indicates a limited expressivity of the main genetic factor controlling schizophrenia, but it should not be misinterpreted in the sense that the extent of the deficit is an adequate measure of the part played by non-genetic agents in the production of a schizophrenic psychosis. From a biological standpoint, the finding classifies schizophrenia as both preventable and potentially curable. The implication is that the main schizophrenic genotype is not fully expressed either in the absence of any particular factor of a precipitating nature or in the presence of strong constitutional defense mechanisms which in turn are partially determined by heredity. The statistical difference between observed and expected morbidity rates for unquestionably homozygous carriers of the schizophrenic genotype does not mean, however, that heredity is effective in only 70 to 85 percent of schizophrenic cases, or that it is essential merely to the extent of 70 to 85 percent in any one case.

In order to exclude the possibility that the entire difference in morbidity between monozygotic and dizygotic cotwins might be sufficiently *explained by factors other than genetic*, it is necessary to analyze the morbidity rates for the various sibship groups in relation to any developmental or environmental circumstances peculiar to twins and siblings. In this evaluation of significant similarities and dissimilarities in the life conditions of various relationship groups in our index families, a credible explanation should be sought especially for a finding which is never accounted for by exponents of purely "cultural" theories of schizophrenia. This rather striking observation is that over 85 percent of our groups of siblings and dizygotic cotwins did *not* develop schizophrenia, although about 10 percent of them had a schizophrenic parent, all of them had a schizophrenic brother or sister, and a large proportion shared the same environment with these schizophrenics before and after birth.

For anatomical reasons, prematurity of birth, instrumental delivery and reversal in handedness are more common in twins than in single-born individuals. It is shown in Fig. 10, however, that no one of these factors has any bearing on the occurrence of schizophrenia in persons who happen to be twins. There is practically no difference between concordant and discordant twin pairs in the frequency of premature birth (14.3-15.4 percent) or of instrumental delivery (4.1-4.2 percent). In discordant index pairs, over 82 percent are alike in regard to handedness, the vast majority (81.8 percent) being right-handed. In the unlike pairs, left-handedness occurs about as often in the non-schizophrenic twin partners (9.1 percent) as in schizophrenic twin index cases (8.2 percent). It is in accordance with expectation that most of the concordant twin pairs showing dissimilarity as to left-handedness are monozygotic.

The collective morbidity rates for the co-

	SIMILARITY OF DELIVERY AND HANDEDNESS IN TWIN PARTNERS					DISSIMILARITY OF INSTRUMENTAL DELIVERY AND HANDEDNESS IN TWIN PARTNERS			
						INSTRUMENTAL DELIVERY IN		LEFT-HANDEDNESS IN	
	NORMAL DELIVERY	PREMATURE BIRTH	INSTRUMENTAL DELIVERY	RIGHT-HANDEDNESS	LEFT-HANDEDNESS	SCHIZOPHRENIC TWIN	NON-SCHIZOPHRENIC TWIN	SCHIZOPHRENIC TWIN	NON-SCHIZOPHRENIC TWIN
BOTH TWIN PARTNERS SCHIZOPHRENIC	79.6	14.3	4.1	72.1	2.5	2.0	–	25.5*	–
ONE TWIN PARTNER SCHIZOPHRENIC	76.2	15.4	4.2	81.8	0.9	2.4	1.8	8.2	9.1
ALL TWIN INDEX PAIRS	77.1	15.1	4.2	67.4	1.2	2.3	1.3	12.9	6.6

* OF 41 TWIN PAIRS IN WHOM ONLY ONE OF THE TWO SCHIZOPHRENIC TWIN PARTNERS WAS FOUND TO BE LEFT-HANDED, 33 PAIRS WERE MONOZYGOTIC.

FIG. 10.—Handedness and instrumental delivery in the twin index pairs.

twins are modified by a variety of secondary factors, genetic as well as non-genetic, but certainly not to an extent which would explain the marked difference between the two types of twins. Variation in relation to the sex factor cannot exist in monozygotic twin pairs and is of equally limited extent in the groups of siblings and dizygotic twins. The range of the former group is from 12.3 to 16.1 percent, and that of the latter group from 10.3 to 17.6 percent (Fig. 11). The difference in morbidity remains constant regardless of whether the siblings and cotwins are male or female. This sex variation is an indication that fraternals belonging to the same sex as a given index case have a greater chance of being alike in any particular circumstances which may favor the manifestation of the schizophrenic genotype. It is clear, however, that these sex variations are by no means extensive enough to permit a non-genetic explanation for the entire difference, or a major part of the difference, between the concordance rates of monozygotic and dizygotic twin pairs.

	SIBLINGS OF TWIN INDEX CASES			DIZYGOTIC COTWINS			MONOZYGOTIC COTWINS		
	MALE	FEMALE	TOTAL NUMBER	MALE	FEMALE	TOTAL NUMBER	SEPARATED	NON-SEPARATED	TOTAL NUMBER
SAME-SEXED	15.9	16.3	16.1	17.4	17.7	17.6	77.6	91.5	85.8
OPPOSITE-SEXED	12.5	12.0	12.3	10.5	10.2	10.3	—	—	—
TOTAL NUMBER	14.0	14.5	14.3	14.3	14.9	14.7	77.6	91.5	85.8

FIG. 11.—Variations in the schizophrenia rates of siblings and twin partners according to sex and the similarity or dissimilarity in environment.

The main variations in the morbidity rate of monozygotic cotwins are apparently associated with age at disease onset, type of psychosis, and a variety of extrinsic factors causing significant changes in the physical development and general health status of one twin partner. Most of these modifications in susceptibility or resistance do not lend themselves to statistical analysis, and it is impossible here to enter into a discussion of individual twin histories. It is essential, however, to stress the great variability of such contingent influences, because it is this point which makes the etiology of schizophrenic processes so complex and a carefully adapted program of constructive therapeutic measures so important. Many of our twin histories indicate that incidental factors such as pregnancy, intercurrent disease, or a reducing diet which may have been responsible for the crucial difference between health and psychosis in one twin pair, will not have the same vital effect in others.

The morbidity rate for monozygotic cotwins varies from 77.6 to 91.5 percent for those twin partners who were or were not separated for over five years prior to disease onset in the index twin (Fig. 12). It has already been emphasized that this statistical difference is no adequate expression of the relative effect of extraneous circumstances on the development of schizophrenia in genetically alike persons. Separation is no exact measure of dissimilarity in regard to environmental agents precipitating schizophrenia. There are numerous factors of potential etiological significance, which are practically universal. In fact, our group of separated one-egg pairs includes twins who developed schizophrenia at almost the same time, although their separation took place soon after birth and led to apparently very different life conditions.

Conversely, even with similar environment it cannot be expected that the time of onset of a schizophrenic psychosis in genetically identical persons will be exactly the same. It is shown in Fig. 13 that simultaneous occurrence of schizophrenia is found in only 17.6 percent of monozygotic twin pairs. In about one-half of the index pairs (52.9 percent) there is a difference of one month to four years, and in over one-quarter the difference may be from four to twelve years. Psychobiologically it is of interest to note that significant dissimilarities in symptomatology are observed only in twin partners who show a definite variation in age of onset.

The age discrepancies between twin partners remain about the same if the comparison is based on the dates of first admission. The average age at disease onset is 22.1 years for the index twins, and 25.6 years for the cotwins.

There are also certain differences in the period of time during which either the twin

partners were under observation before they were classified as concordant or discordant as to schizophrenia, or during which the concordant pairs had been separated before the index twins developed their psychosis. A glance at Fig. 14 will reveal, however, that these differences are entirely insufficient to explain the variations in morbidity between one-egg and two-egg types of twins. The separated concordant twins had lived apart for an average of 11.8 years before disease onset in the first twin, and the discordant index pairs had reached a total average age of thirty-three years at the time of their examination for this survey. All categories of cotwins had at that time been discordant for over eight years since the development of schizophrenia in the index cases.

	Separated * pairs	Non-separated pairs	Total number
Number of cotwins	59	115	174
Corrected morbidity rate of cotwins	77.6	91.5	85.8

* Separated for five years or more prior to the onset of schizophrenia in the index twin.

FIG. 12.—Concordance as to schizophrenia in separated and non-separated pairs of monozygotic twins.

	Average age in years			Percentage of twin pairs showing differences in age at onset of schizophrenia					
	First twin	Second twin	Difference between twin partners	No difference	0.1-4 years	4.1-8 years	8.1-12 years	12.1-16 years	16.1-20 years
Onset of disease	22.1	25.6	3.5	17.6	52.9	18.6	10.8	..	..
First admission	26.0	30.3	4.3	26.5	38.2	21.6	7.8	3.9	2.0

FIG. 13.—Variations in the average age at disease onset and first admission of the monozygotic twin index pairs concordant as to schizophrenia.

	Number of index pairs		Average duration in years		Discordant pairs in per cent	
	Concordant	Discordant	Separation in concordant pairs	Discordance in discordant pairs	With similar environment	With dissimilar environment
Monozygotic	120	54	11.1	8.5	61.1	38.9
Dizygotic same-sexed	34	262	12.9	12.5	57.3	42.7
Dizygotic opposite-sexed	13	208	13.8	11.1	50.5	49.5
All twin index pairs	167	524	11.8	11.5	55.0	45.0

FIG. 14.—Distribution of concordance and discordance in twin index pairs in relation to disease onset and environment.

It is more significant that similarity and dissimilarity of environment are almost equally distributed among the discordant index pairs.. The ratio for all discordant pairs is 5.5:4.5, and that for monozygotic pairs alone is 6:4.

Additional evidence against a simple correlation between closeness of blood relationship and increasing similarity in environment with correspondingly intensified pressure toward development of a psychosis is obtained by an investigation of the distribution of concordance and discordance in similar and dissimilar environments in both groups of index pairs (Fig. 15). This analysis indicates that 22.4 percent of all monozygotic pairs are concordant without similar environment, and that 49.3 percent of all dizygotic twin partners remain discordant although they have been exposed to the same environment as an index case.

It may be of some interest that the concordance rate of monozygotic pairs varies from 65.0 to 71.1 percent according to dissimilarity or similarity of environment, while there is no corresponding increase in the dizygotic group (10.8—7.6 percent). There can be no doubt, however, that any such variation in relation to environment does not suffice to explain a ratio of 1:6 or 14.7:85.8 percent, as has been obtained for the morbidity rates of dizygotic and monozygotic twin partners.

That heredity determines the individual capacity for development and control of a schizophrenic psychosis is demonstrated still more clearly, if the similarities in ex-

tent and outcome of the disease are taken as further criteria of comparison. This is the objective of the remaining tabulations (Figs. 16-18) which compare the cotwin groups with completely and incompletely similar or dissimilar behavior to schizophrenia, instead of comparing the twin groups with and without psychotic symptoms as was done by the use of morbidity rates.

Complete similarity has been assumed when both twins either recovered from a mild psychosis with little or no defect (Group II) or reached about the same degree of medium (Group III) or extreme deterioration (Group IV). On the basis of this classification, complete concordance is found in 67.5 percent of the concordant one-egg twin pairs, but only in 6.4 percent of the dizygotic pairs (Fig. 16).

Complete dissimilarity means that the cotwins developed no psychosis despite similar environment (Group I), while the index twins showed an extremely deteriorating type of psychosis. Such a difference does not occur in the group of monozygotic twins, but it ensues in about every sixth dizygotic pair under dissimilar environmental conditions (Fig. 17). This finding implies that the chance of a rapidly progressive psychosis (low resistance) is practically zero for a schizophrenic patient who is the monozygotic twin of, or genetically identical with, a person who remains free of schizophrenic manifestations under similar environmental circumstances. However, the chance of developing a very destructive type of psychosis is 1 : 3.5, if the person is merely the patient's sibling or dizygotic twin, which means that he is as likely to differ in the inherited elements for a satisfactory resistance as are two brothers or sisters.

In comparing the total groups with dissimilar and similar behavior to schizophrenia, incomplete similarity denotes a difference of

	COTWINS WITH SIMILAR ENVIRONMENT			COTWINS WITH DISSIMILAR ENVIRONMENT			ALL COTWINS		
	NUMBER OF COTWINS	RATE OF COTWINS IN PER CENT		NUMBER OF COTWINS	RATE OF COTWINS IN PER CENT		TOTAL NUMBER	RATE OF COTWINS IN PER CENT	
		CONCORDANT	DISCORDANT		CONCORDANT	DISCORDANT		CONCORDANT WITH DISSIMILAR ENVIRONMENT	DISCORDANT WITH SIMILAR ENVIRONMENT
MONOZYGOTIC	114	71.1	28.9	60	65.0	35.0	174	22.4	19.0
DIZYGOTIC	276	7.6	92.4	241	10.8	89.2	517	5.0	49.3
TOTAL NUMBER	390	26.2	73.8	301	21.6	78.4	691	9.4	41.7

FIG. 15.—Relationship between similarity or dissimilarity in environment and concordance or discordance as to schizophrenia in the twin index pairs.

	Concordant pairs in percent				
	Not separated	Separated-similar environment	Separated-dissimilar environment	Completely * concordant	Incompletely * concordant
Monozygotic	50.8	16.7	32.5	67.5	32.5
Dizygotic	42.5	2.1	55.3	6.4	66.0
All twin index pairs	48.5	12.6	38.9	50.3	49.7

* As related to the following four classifications:
Group I: No schizophrenia despite similar environment.
Group II: Schizophrenia with little or no deterioration (recovery).
Group III: Schizophrenia with medium deterioration.
Group IV: Schizophrenia with extreme deterioration.

FIG. 16.—Distribution of concordance in relation to similarity of environment and clinical course of schizophrenia.

only one step between two of the four subgroups; and incomplete dissimilarity, a difference of two steps. This comparison yields a ratio of 3:55 for the monozygotic pairs, and a ratio of 3:1 for the dizygotic pairs. frequent than dissimilar behavior in monozygotic twins, although dissimilarity predominates in dizygotic twin partners.

Fig. 18 expresses the same difference in resistance between one-egg and two-egg

Degree of resistance to schizophrenia	Clinical behavior to schizophrenia in twin index pairs				Number of twin pairs	
	First twin		Second twin		Monozygotic	Dizygotic
	Sub groups	Clinical classification	Sub groups	Clinical classification		
Complete dissimilarity	IV	Extremely deteriorating type of schizophrenia	I	No schizophrenia despite similar environment	0	91
	IV	Extremely deteriorating type of schizophrenia	Ia	No schizophrenia with dissimilar environment	0	62
Less complete dissimilarity	IV	Extremely deteriorating type of schizophrenia	II	Schizophrenia with little or no deterioration	9	21
	III	Schizophrenia with medium deterioration	I, Ia	No schizophrenia (regardless of environment)	0	197
Complete similarity	II	Schizophrenia with little or no deterioration (recovery)	II	Schizophrenia with little or no deterioration	19	2
	III	Schizophrenia with medium deterioration	III	Schizophrenia with medium deterioration	33	0
	IV	Schizophrenia with extreme deterioration	IV	Schizophrenia with extreme deterioration	29	1
Less complete similarity	II	Schizophrenia with little or no deterioration	I, Ia	No schizophrenia	54	120
	III	Schizophrenia with medium deterioration	II	Schizophrenia with little or no deterioration	20	14
	IV	Schizophrenia with extreme deterioration	III	Schizophrenia with medium deterioration	10	9
Total number of pairs	All dissimilar pairs				9	371
	All similar pairs				165	146
	Grand total				174	517
Ratio	No schizophrenia to extremely deteriorating schizophrenia				0 : 174	1 : 2.5
	Dissimilar resistance to similar resistance				3 : 55	3 : 1

FIG. 17.—Variations in resistance to schizophrenia in the twin index pairs.

The difference in similarity of resistance between the two types of twins is expressed by a ratio of 1:55, which far exceeds the difference found in their original morbidity rates. In other words, similar behavior to schizophrenia is about eighteen times more twins in rates rather than in ratios, identifying less complete and complete dissimilarity in behavior to schizophrenia with favorable and very favorable resistance, and similar behavior in the deteriorating subgroups with insufficient resistance. In the

monozygotic group, five out of 100 cotwins of schizophrenic index cases show a tendency to favorable resistance and none shows very favorable resistance, if their twin partners are insufficiently resistant. In the dizygotic group, however, favorable resistance is seen in seventy-two out of 100 cotwins of insufficiently resistant index cases, and very favorable resistance in about 30.

This finding indicates that *constitutional resistance* to the main genotype of schizophrenia is determined by a genetic mechanism which is probably non-specific and certainly multifactorial. Taking into account

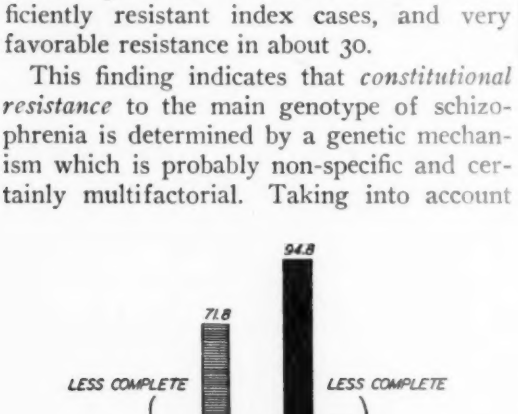


FIG. 18.—Rates of similar and dissimilar resistance to schizophrenia.

the results of biometric investigations, there is reason to believe that this constitutional defense mechanism is a graded character and somehow correlated with the morphological development of mesodermal elements. For various reasons it does not seem likely, however, that the genetic mechanisms controlling susceptibility and lack of resistance to schizophrenia, that is, the ability to develop a schizophrenic psychosis and the inability to counteract the progression of the disease, are entirely identical with each other. If they are identifiable, it is possible without qualification to accept the recent suggestions of Penrose and Luxenburger that inheritance of schizophrenia may be "the result of many factors."

As far as the *specific predisposition* to schizophrenia is concerned, that is, the inherited capacity for responding to certain stimuli with a schizophrenic type of reaction, the findings of the present study are conclusively in favor of the genetic theory. Our conclusion is that this predisposition depends on the presence of a specific genetic factor which is believed by us to be recessive and autosomal.

The hypothesis of recessiveness is borne out by the taint distribution in the ancestry of our index cases and by an excess of consanguineous marriages among their parents. Of 211 twin index pairs without schizophrenia in their known ancestry, twelve sets (5.7 percent) originated from consanguineous parental matings. Of the remaining index pairs, 95 were found to have a schizophrenic parent; 283 had no schizophrenic parent, but schizophrenic cases in the collateral lines of ancestry; and in 102 pairs the available information about the ancestors was considered inadequate. This excess of consanguineous parental marriages in the present survey appears quite convincing, even if a part of it may be due to the fact that our index cases are twins.

Psychiatrically it should be evident that the *genetic theory of schizophrenia* as it may be formulated on the basis of experiment-like observations with the twin family method, does not confute any psychological concepts of a descriptive or analytical nature, if these concepts are adequately defined and applied. There is no genetic reason why the manifestations of a schizophrenic psychosis should not be described in terms of narcissistic regression or of varying biological changes such as defective homeostasis or general immaturity in the metabolic responses to stimuli. Genetically it is also perfectly legitimate to interpret schizophrenic reactions as the expression either of faulty habit formations or of progressive maladaptation to disrupted family relations. The genetic theory explains only *why* these various phenomena occur in a particular member of a particular family at a particular time.

The general meaning of this genetic explanation is that a true schizophrenic psychosis is not developed under usual human

life conditions unless a particular predisposition has been inherited by a person from both parents. Genetically it is also implied that resistance to a progressive psychosis does not break down without certain inherited deficiencies in constitutional defense mechanisms, the final outcome of the disease being the result of intricate interactions of varying genetic and environmental influences. Another genetic implication is that a schizophrenic psychosis can be both prevented and cured. The prerequisite is that the psychosomatic elements, which may act as predispositional, precipitating or perpetuating agents in such a psychosis, are morphologically identified, and that the complex interplay of etiologic and compensatory mechanisms is fully understood. Pragmatic speculation will be no aid in reaching this goal.

SUMMARY

1. The methods available for genetic investigations in man are the pedigree or family history method, the contingency method of statistical prediction, and the twin study method.

2. A study of the relative effects of hereditary and environmental factors in the development and outcome of schizophrenia was undertaken by means of the "Twin Family Method." The study was organized with the cooperation of all mental hospitals under the supervision of the New York State Department of Mental Hygiene. The total number of schizophrenic twin index cases, whose cotwins were available for examination at the age of fifteen years, was 794.

3. In addition to 1,382 twins, the 691 twin index families used for statistical analysis include 2,741 full siblings, 134 half-siblings, 74 step-siblings, 1,191 parents, and 254 marriage partners of twin patients. The random sampling of these twin index pairs is indicated by the distribution of 174 monozygotic and 517 dizygotic pairs, yielding a ratio of about 1 : 3.

4. The morbidity rates obtained with the "Abridged Weinberg Method" are in line with the genetic theory of schizophrenia. They amount to 1.8 percent for the step-siblings; 2.1 percent for the marriage partners; 7.0 percent for the half-siblings; 9.2 percent for the parents; 14.3 percent for the full-siblings; 14.7 percent for the dizygotic cotwins; and 85.8 percent for the monozygotic cotwins. This morbidity distribution indicates that the chance of developing schizophrenia in comparable environments increases in proportion to the degree of blood relationship to a schizophrenic index case.

5. The differences in morbidity among the various sibship groups of the index families cannot be explained by a simple correlation between closeness of blood relationship and increasing similarity in environment. The morbidity rates for opposite-sexed and same-sexed two-egg twin partners vary only from 10.3 to 17.6 percent, and those for non-separated and separated one-egg twin partners from 77.6 to 91.5 percent. The difference in morbidity between dizygotic and monozygotic cotwins approximates the ratio of 1 : 6. An analysis of common environmental factors before and after birth excludes the possibility of explaining this difference on non-genetic grounds.

6. The difference between dizygotic and monozygotic cotwins increases to a ratio of 1 : 55, if the similarities in the course and outcome of schizophrenia are taken as additional criteria of comparison. This finding indicates that constitutional inability to resist the progression of a schizophrenic psychosis is determined by a genetic mechanism which seems to be non-specific and multifactorial.

7. The predisposition to schizophrenia, that is, the ability to respond to certain stimuli with a schizophrenic type of reaction, depends on the presence of a specific genetic factor which is probably recessive and autosomal.

8. The genetic theory of schizophrenia does not invalidate any psychological theories of a descriptive or analytical nature. It is equally compatible with the psychiatric concept that schizophrenia can be prevented as well as cured.

BIBLIOGRAPHY

1. Gralnik, A. The Carrington family. Psychiat Quart., **17**: 2, 1943.

2. Hoskins, R. G. The biology of schizophrenia. The Salmon Memorial Lectures, New York, 1945.

3. Kallmann, F. J. The genetics of schizophrenia. New York, 1938, J. J. Augustin.

4. Kallmann, F. J. The scientific goal in the prevention of hereditary mental disease. Proc. of Seventh International Genetical Congress, Edinburgh, 1939, Cambridge University Press.

5. Kallmann, F. J., and Barrera, S. E. The heredoconstitutional mechanisms of predisposition and resistance to schizophrenia. Am. J. Psychiat., **98**: 4, 1942.

6. Kallmann, F. J., and Reisner, D. Twin studies on the significance of genetic factors in tuberculosis. Am. Rev. Tuberc., **47**: 6, 1943.

7. Luxenburger, H. Erbpathologie der Schizophrenie. Part II, Vol. II of Guett's Handbuch der Erbkrankheiten. Leipzig, 1940, G. Thieme.

8. Myerson, A. Some trends of psychiatry Am. J. Psychiat., Cent. Anniv. Iss., 1944.

9. Penrose, L. S. Heredity. Part IV, Vol. I of Hunt's Handbook, Personality and the Behavior Disorders. New York, 1944, Ronald Press Co.

10. Pollock, H. M., Malzberg, B., and Fuller, R. G. Heredity and environmental factors in the causation of manic-depressive psychoses and dementia præcox. Utica, 1939, State Hospital Press.

11. Rosanoff, A. J., Handy, L. M., Rosanoff Plesset, I., and Brush, S. The etiology of so-called schizophrenic psychoses. Am. J. Psychiat., **91**: 247, 1934.

12. Rosenberg, R. Heredity in the functional psychoses. Am. J. Psychiat., **101**: 2, 1944.

13. Slater, E. Genetics in psychiatry. J. Ment. Sci., **90**: 3, 1944.

14. Strecker, E. A. Fundamentals of psychiatry. Philadelphia, 1945, J. B. Lippincott Co.

15. Weinberg, W. Zur Probandenmethode und zu ihrem Ersatz. Ztschr. Neurol., **123**: 809, 1930.

FAMILY MENTAL DISEASE IN PRIVATE PRACTICE[1]

ABRAHAM MYERSON, M.D., Boston, Mass.

Every subject acquires a revised meaning and importance with the advance of knowledge. This is particularly true of the subjects of heredity and constitution in their relationship to the mental diseases. The newer therapeutic measures, especially prefrontal lobotomy, that marvel of direct scientific treatment, the shock methods, the newer drug therapeutics, the use of the vitamins and, although I say this with less emphasis, the limited success of certain psychotherapeutic procedures, have brought about this state of affairs—*that more of the mentally sick have remissions and thus an increased community life and consequently, a greater possibility of marriage and reproduction than ever before.*

Now then, if there is a hereditary basis to the depressive states, to cite one important group of cases, and unless these methods cure the germplasm or whatever inherent brings about this type of mental disease, then the net result is not good for mankind and constitutes what has been called *cacogenics.* I have seen many cases in which, following electric shock treatment, a remission occurred in a depression and the individual, especially if a woman, married and had children. If there is a heredity to depression, then the electric shock remission is a cacogenic effect, and the real result, although useful temporarily for the individual, is not fundamentally useful or good for the race; and medicine thus has become increasingly open to the reproach that it keeps alive the unfit and permits their propagation.

At the present time it cannot be said that we *cure* any of the more important and more fixed mental diseases. The best that the shock treatments do is to produce remissions or changes in the character of the mental diseases. I think it would be a grossly optimistic point of view to say that actual cure is obtained in the vast majority of cases. It may well be that in the long run no very great change is produced in the history of the case, even though these methods deserve great credit and are, at least temporarily, enormously useful. Nor is there evidence that prefrontal lobotomy, which soon will occupy the center of the therapeutic stage, cures the germplasm. At the best, it is not likely that, if there is a hereditary background to these diseases, the germplasm has been altered in any fundamental way. The liability for propagation has been increased, which is a long-term liability, *if,* and only if, these diseases have a hereditary basis. I emphasize this *if,* because the most that can be said is that it seems likely that there is a heredity to these diseases, first, on the basis of what is observed and, secondly, on the important general basis that there is a heredity to everything else; that heart disease, arteriosclerosis, the liability to cancer have a constitutional and hereditary basis as well as environmental sources. Of course, it must be emphasized that germplasm or hereditary mechanisms are not inaccessible to the environment, and that at all times environment and hereditary substances operate in reciprocal relationship so that gross changes can be produced in hereditary substance by the operation of environmental forces. This is a well established fact and, indeed, the whole concept of heredity is changing due to the work of many men in the genetic field. There has even been recently established a Foundation for the study of the heredity of personality which, I believe, deserves our attention even though we know that personality becomes enormously modified by environmental forces.

The difficulties of human study in the field of genetics are enormous, especially in the field of psychiatry. The term *family* is fallacious as meaning a common stock, since every individual has millions of ancestors whose qualities may appear in the individual,

[1] Read at the 102d annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

despite the fact that they seem absent in the immediate ancestors and siblings. Moreover, very little is known of any family, and the family history as usually obtained is a tissue of misinformation, concealment, evasion, ignorance, and as many other terms of this kind as one wishes to use. An ancestor, a mother may have a mental disease; the daughter may have a similar or differing mental disease; but the father, although unknown as the basis for the psychopathic constitution, may sooner or later show up as an agent to be considered. In other words, all human studies labor under great difficulties, and the tremendous interweaving of stocks and the role of coincidence interpose great handicaps, which cannot be solved in any short-term study.

There is further the law of *anticipation or antedating* to complicate the matter. This is the law, if one wishes to use such a term, by which a family history is only finished with the death of all its members, since it is common for a current family history to be negative when the first member appears in view, and then ten years later the mother or father is seen or an older sibling comes to attention. Just as the individual life, according to a Greek philosopher, could never be declared good or fortunate until it is ended, so no family history is negative for mental diseases until all its members are gone.

In this study of the families of a private practice, which is not in any sense thorough or complete, only those cases have been counted as positive, in which either two or more members are known personally to me as patients, and/or when hospital records were obtained as part of the family history of the cases. This study thus excludes the cases in which the immediate family history as given is positive for mental disease, but in which no records could be or have been obtained. A cursory study of our cases shows that this group is even larger than the included families. Moreover, these family cases thus selected are limited to (1) parents and siblings, and (2) siblings. This, of course, is not at all complete as a genetic study and may exclude the larger number of cases, since many observers, especially in the case of schizophrenia, think that the line of descent is more frequently by collaterals than by direct relationship.

The reasons for thus limiting the study are, first, that few people really know much about uncles, aunts and cousins; and secondly, new genetic factors are introduced in such immeasurable amounts as to bring about, when the family is greatly extended, more confusion than more fact. Even when the history is limited to the known members as thus delimited, the role of coincidence cannot be excluded, since it may well be that some other genetic factor or even environmental circumstance is responsible. *A schizophrenic mother or father creates a psychopathological home which may well be a factor in producing mental disease in a descendant if environmental circumstances and conditioning are of importance, which they undoubtedly are. Indeed, society itself is definitely psychopathic or anti-biological in many ways. Fundamental drives are frustrated, delayed and diverted from the cradle to the grave by the social forces which operate through custom, religion, education and general social moulding and in a way comparable to the Pavlovian experiments by which animals are conditioned into neuroses and psychoses.* To cite only one phase of this social psychopathology and ambivalence, the desire and satisfaction of the most primitive types of drives are constantly being obstructed, perverted and destroyed by obsolete and ancient ideas of morality, worthiness and legality.

This paper thus will discuss the hereditary factors in my private practice in epilepsy, feeblemindedness, the so-called functional psychoses, and the major neuroses. The epileptic cases are limited to so-called idiopathic types, and feeblemindedness as considered here excludes cretinism, mongolism, and the organically conditioned defects of intelligence.

Not to anticipate the results at this point, it may be said that in the case of epilepsy and feeblemindedness, the results are strikingly different from those of the neuroses and especially the psychoses, and are in sharp contradiction to much of the literature concerning epilepsy and feeblemindedness. To supplement the situation in epilepsy and feeblemindedness, I have gathered statistics

from other sources than my own practice to act as a sort of control.

It may be asked, in what way does a private practice study of these conditions differ from state hospital or institutional data? In the first place, the great majority of the so-called neuroses do not reach the mental hospital in any considerable measure, whereas they form a great part of private practice, so that if there is any familial connection between the severe neuroses and psychoses, it does not become manifest in any convincing way in the work which emanates from state hospitals. Furthermore, the milder cases of mental disease, such as the recurrent depressions, also remain out of the ken of the institutional psychiatrists but form a considerable part of the practice of the private physician. The evolution from a neurosis to a psychosis is practically never seen in the state institutions. It is relatively common in private practice.

The private practice in consideration is not a collection of the rich. Only the very lowest financial classes are under-represented. Farmers, laborers, mechanics, small and big business men, professionals of all types from the high to the low appear. Only the negroes are under-represented, but with this conspicuous exception all races, creeds and colors are included, with some over-emphasis in the case of the Jews, the Irish and the Italians. The reasons for this are, first, the race of the writer which brings to him a larger proportion of Jews than would otherwise come, but also the fact that the patients mainly come from New England, where a larger part of the Irish-Americans are found and a great proportion of Italians as well.

The technique of collecting these data is very imperfect and, therefore, the statistics represent very much less than the true involvement of the families. I have stated some of the reasons before, but it is well to put them together at this point. In the first place, the unsupported family history, even though reliable, is not accepted as authentic. Secondly, the law of anticipation-antedating makes the proportion of cases much less than a later period would. In other words, in the most of the cases the family history is by no means complete. Thirdly, there is much misinformation and concealing. It has happened very frequently that the family history was declared negative, when a longer acquaintance with the family brought out the fact that another member had been in a state institution following child-birth or some such circumstance, which was supposed to exclude true mental sickness. And in many instances deliberate concealment took place which only came to my knowledge when some chance remark of a relative brought out the involvement. It is interesting to compare my family histories with those of some of the institutions which have sent me records of some member of a family whom I was studying. In an extraordinarily large number of cases amounting, I think, to more than 50% the family history was declared negative, when there already existed definite mental disease.

Epilepsy

One hundred consecutive cases of epilepsy were studied, of which 56 were males and 44 females. Of these there were 11 which were associated with feebleminded-ness and consequently were excluded. There were 12 cases which were finally established as due to organic brain disease. There were 3 more cases in which there had been considerable likelihood of organic brain disease which, however, was not definitely established by study. There is thus a standard proportion of organic disease as a basis for epilepsy. There remained 77 cases of so-called idiopathic epilepsy, and by the criteria of this study, namely, cases of father, mother and siblings which had been seen by me, and/or of which I had records, there was only one family in which there was familial epilepsy.

There were only 2 cases with other conditions, such as a marked neurosis or psychosis, in which the individuals either appeared as my patients or had obtainable records. The family history as *given* includes 8 other types of mental disorder. When these are broken down, they are extremely scattered and, I believe, have no further significance insofar as the epilepsy is concerned. Thus, one brother committed

suicide in a depression; a maternal aunt was in an institution with cerebral arterial disease; a father had encephalitis; one brother had an agitated depression, etc. Of the 2 family cases known to me, the brother of one epileptic had an agitated state from which he recovered and did not have epilepsy. The father of another had a typical encephalitis and the patient's sister had a psychoneurosis. This is certainly not an impressive family record. Of course, if one included all the social and biological diseases of mankind, such as diabetes, tuberculosis, vagrancy, kidney disease, criminality, headache, etc., as has been done in the older literature, all the cases would probably have to be classed as familial mental disease, but so would the family of the writer and of everyone who reads this paper.

Confining ourselves to epilepsy itself, the record is impressive by its negative results and this, I think, is as it should be when one considers the fact that in no other condition known to psychiatry can the environment be evoked as a causal agent, both experimentally and in the march of events, as in the case of epilepsy. Convulsive attacks can be produced and are produced for therapeutic purposes by insulin, metrazol and electric shock. Any drug given to excess may bring about fits, and so with hyperventilation, although this is said to rest on an epileptic basis. Any organic disease of the brain, whether accidental, infective or due to drug poisoning, such as alcohol, may have associated convulsions. All animals have convulsions. It seems to me likely, therefore, that the convulsive states have no great dependence upon heredity or constitution, unless the constitution be developed during the life history of the individual. This, of course, is in sharp contradiction to the work of Lennox and his associates, who, I think, lean too heavily on the electroencephalogram. It is also in marked contrast to the older data on the subject and to some of the recent work as well, but this older work has rested on a polymorphous approach to the problem. All kinds of conditions, including severe headache, have been classified as forms of epilepsy or as indicating constitutional taint. It is as if in studying tuberculosis, one were to consider as *like* conditions from the heredity standpoint bronchitis, asthma and hysteric cough. The tremendous contrast between the very few families that I have seen, in which epilepsy occurred in siblings and parents or amongst siblings, and such diseases as schizophrenia and manic-depressive psychosis will make the point much stronger.

It is interesting to note that at an institution for the epileptics, there were relatively few family groups as compared, for example, to the number of family groups at the institutions for mental disease or for feeblemindedness. Thus, I have the figures of the Monson State Hospital (Palmer, Mass.) which unfortunately are not at all exact but represent the best that Dr. Robinson, the clinical director, can do for me at this time. He states that of 1485 patients at that institution, there are probably 12 which represent families made up of siblings or of parents and siblings. This proportion is almost within the range of coincidence, since there is a considerable amount of epilepsy in the community, and certainly does not bear out the idea that there is a strong hereditary or constitutional factor in epilepsy. I hope to have more complete data on this matter in the future.

Feeblemindedness

Practically speaking, there has been only one opinion of any consequence in the literature concerning feeblemindedness, namely, that when one excludes the organic cases and the cretins, mongols and imbeciles, heredity, and especially familial heredity, plays the most important rôle. The classical studies are too well known to be cited here and have played an important part in the shaping of cultural thought on the matter. Now and then, some one like myself has challenged the authenticity of the Nams, the Jukes and the Kallikaks, and I have been in more than one controversy in the matter, taking the attitude that if these were cases of real feeblemindedness, they were exceptional and did not by any means present a true picture of feeblemindedness.

In previous writings I have stated, and this has also been the opinion of Dayton, that the number of familial cases of fee-

blemindedness in non-institutional groups is very much less than the familial cases in institutions. It will be seen by Dayton's figures that there is twice as much hereditary feeblemindedness in the institutional group as in the public school group. This, I think, is exactly what one would expect. Institutional groups like the Wrentham State School and the Walter E. Fernald School would seem necessarily to represent a collection of the worst families, because defective families are not so able to care for defective children as are less defective families. In other words, institutional groups would logically be loaded by the social circumstances, and the amount of hereditary defect in institutions should not be a true index of the true familial state of feeblemindedness. Some facts which I present contradict this earlier idea.

There were 75 current cases of feeblemindedness, of which 47 were males and 28 females. Fourteen of these cases had associated epilepsy and 14 cases had organic brain disease or injury as apparent etiologic bases. Excluding these 28 cases, there were 47 current cases of feeblemindedness in which there were only 2 cases with a proven family history of feeblemindedness by those criteria which I have used in this study, namely, either one parent or one or more of the proband's siblings was feebleminded as established by my own records or those of an institution. Of course, this will exclude other cases, but the same will be true and more so of similar cases of psychoses and neuroses. In the case of feeblemindedness the parent is already immune from feeblemindedness and so are the then living siblings, since feeblemindedness exists from birth by definition, and in this way the statistics of incidence become much more certain than those of the neuroses and psychoses in which the individual is not immune until death, no matter at what age that may take place.

Therefore, the statistics I am presenting are far more striking and conclusive than the statistics later to be cited of the psychoses and neuroses. *In other words, in a community practice feeblemindedness tends on the whole to be sporadic and not greatly associated with familial feeblemindedness.* Of the known cases of other diseases associated with the cases of feeblemindedness, the scattering indicates there is no real relationship. Thus, I had seen or had records of such conditions: grandmother and mother had a neurosis; father developed a delusional state; sister had a psychoneurosis. In some histories of other cases, which were not authenticated by personal study or by records, the following appeared: suicide in the immediate ancestry; manic-depressive in a paternal uncle; a paternal grandfather had involutional melancholia; a sister had dementia præcox. These scattered conditions are certainly not more prevalent in these cases of feeblemindedness than in the normal families, which really do not exist if we spread the net of relationship far enough and include all kinds of mental disturbance. *Mental disease,* I think, *is a sprinkle everywhere. In the case of some families it becomes a shower.*

In some previous publications I studied the incidence of feeblemindedness in families mainly from the standpoint of psychoses present. In the case of the studies on familial feeblemindedness published in 1930, my colleagues and I studied the amount of mental disease in the ancestors and relatives of the feebleminded and came to the conclusion that there was no biological relationship between feeblemindedness and the major psychoses and neuroses.

At any rate, so far as actual feeblemindedness is concerned in this study,these 47 individuals—and this is also true of the 28 cases associated with epilepsy and organic brain disease—came from the high, the low, the rich, the poor, the brilliant and the mediocre. It may be that these cases are hereditary in the sense that they are of germplasm or developmental origin. They seem to me to be more related to what may be called "sports" or early blastophoria than the usual hereditary characters. In so far as these families are concerned, there was no special abnormality to them aside from these individual cases.

The statistics from the Devereux Schools, (Devon, Pa.) speak for themselves:

> The number of feebleminded, as compared to the total school population, is usually about 50 to 55%, and at the present time there are 221 defectives in

the entire school. There are two sets of siblings in the school at this time, one a brother and sister, the other half-sisters. . . . . I am sorry to say that it is impossible to say with certainty the exact number of siblings who have appeared at Devereux, compared to the total number of children who have been trained in the school, but it would certainly be much less than one-half of one per cent.

Parent-sibling groups would logically not appear in a private school. Yet if there were a strong familial tendency, many siblings would appear. The sporadic nature of much of feeblemindedness stands out in this and private practice statistics.

I have two studies from school systems, one by Dayton and one gathered at my request by Helen F. Cummings, director of special classes, City of Boston. Dayton's work is committed to the belief that the amount of heredity in the genesis of feeblemindedness is much less in the school systems than in the institutions for the feebleminded. He states, "Heredity, as recorded in the 3,553 school clinic examinations, reveals that feeblemindedness is present in one or both parents in approximately 7% of the cases, mental disease in approximately 3% of the cases, and epilepsy in 1% of the cases. The comparison in heredity made with cases in the Wrentham State School seems to indicate that the inheritance of mental defect is more obvious in institution cases than in school clinic cases."

The figures from the state institutions which Dayton used were collected by my colleagues and myself from the Wrentham State School and the Walter E. Fernald State School. However, the recent figures do not clearly substantiate this statement. Of the 1900 pupils in the special classes in Boston at the present time, there were 138 families representing 304 individuals or nearly 16%. These 304 siblings had 213 siblings who were in the regular graded classes, showing that even in this worst group there was still a considerable portion of normality. The statistics in this group do not include, of course, the parents of the feebleminded and older siblings, which would bring the percentage up, so that it would correspond on the whole to that of the institutions for the feebleminded.

It may well be, therefore, although this is by no means certain, that the schools for the feebleminded really do represent a cross-section of the community with the exception of those individuals who go to private schools or who remain at home cared for in special ways. This probably represents a large segment of the feebleminded, since at all times a large proportion is not in institutions. It is interesting to note also that there are about 70,000 school children in Boston at this time and the known number of defectives is 1900, which is less than 3% of the total. This does not make quite so grim a picture as is usually stated in the literature.

I have some statistics from the Wrentham State School, kindly sent me by Dr. C. Stanley Raymond. Of the 6093 cases admitted to the Wrentham State School up to December of 1945, there were 794 individuals who belonged to family groups. These were divided as follows:

305 families with 2 individuals represented.
45 families with 3 individuals represented.
9 families with 4 individuals represented.
1 family with 6 individuals represented.
1 family with 7 individuals represented.

Data sent me from the Walter E. Fernald State School through the kindness of Dr. Malcolm J. Farrell showed the following: On March 31, 1946, there were 1985 patients with 96 families contributing 213 individuals or about 11% of the population.

Figures from the Belchertown State School, furnished through the courtesy of Dr. Henry A. Tadgell showed the following: On April 6, 1946, there were 1487 individual cases of feeblemindedness with 129 families contributing 319 individuals or about 22%.

The percentage of known familial cases in state hospital groups is undoubtedly much higher than is shown by the above figures. For example, father-sibling groups do not appear, which merely means that the fathers were not known or did not become locally institutionalized.

Elsewhere I have criticized at great length the classical concept of feeblemindedness as involving generation after generation and whole groups and segments of a community or population. It seems incredible that people have taken seriously the Kallikaks, the Jukes and the Nams. All they had to

do to blow these publications into complete oblivion was to study the families of the feebleminded in the state hospitals and to consider the statistics of the school system, the private schools and private practice. It is time that the whole concept of feeblemindedness as occurring in many members of the same group and as persisting for generations was thrust into the limbo of the forgotten and misleading.

There are many facts which indicate that a good deal of feeblemindedness is of hereditary origin, but that much represents physical and cultural deficiency, the physical deficiency representing impaired or defective conditions of life possibly starting in the uterine environment, and the cultural those pressing on the individual from the beginning of life in an environment deficient in the stimulators of intelligence, which needs use to develop its full capacity of function just as much as the muscles do. But this need not be taken up at this point; nevertheless, it is an important theme.

Functional Psychoses

General Remarks

Some general remarks on the incidence of familial mental disease in the following groups of cases must be made. In the first place, diagnosis is fallacious and perilous. There are cases in which we can say without any qualification, this is schizophrenia. There

Total schizophrenics		
Male	Female	Total
88	132	220

are other cases, running a definite cycle, recurring in classical manner, in which we can without reserve make the diagnosis of manic-depressive psychosis. There are atypical cases, however, in which it is difficult even over a long period of observation to reach a very definite conclusion as to diagnosis. This does not alter the fact that there is schizophrenia and there is manic-depressive psychosis, and these terms are names for different conditions. Unfortunately, as I have elsewhere pointed out, different clinicians have criteria which in one institution will bring about an enormous percentage of schizophrenia, whereas in a neighboring institution with practically the same population represented, there will be a disproportionate amount of manic-depressive psychosis. This has been definitely the case in Massachusetts in such neighboring institutions as the Boston Psychopathic Hospital, the Boston State Hospital and the Worcester State Hospital.

Moreover, it is well known that there may be a neurosis-like beginning to many of the mental cases that later become classified as psychoses. I have many such histories in my own experience. When one studies the severe neuroses, and this paper is concerned only with such cases since I rarely see the minor types, one finds a jumble of anxiety, somatic disturbance, obsessive compulsive reactions and hysteric manifestations in one and the same individual at the same time or in different stages of the evolution of his mental disorder.

Schizophrenia

The statistics on the constitution and heredity of schizophrenia are:

Schizophrenics with family history		
Male	Female	Total
24	27	51 (23%)

Family Distribution:

Mother-sibling	21
Father-sibling	7
Sibling-sibling	29

Disease distribution:

	Similar	Dissimilar
Mother-sibling	10	11
Father-sibling	5	2
Sibling-sibling	21	8

In other words, in this group of 220 consecutive cases there was 23% in which definite familial mental disease was established by personal knowledge and record. Since there was at least an equal number of cases in which familial disease was noted in the family history but the patients involved had

not been seen nor had any record been obtained, it seems quite certain that familial mental disease occurs in at least 50% of schizophrenics, if one takes into further account the fact that the families had not disappeared and that further mental disease would naturally occur in some of the cases

I have included in the group of schizophrenic states the definite schizoid states and those marked paranoid states which were not alcoholic or organic origin and which represent cases which, I believe, in the main belong to schizophrenia.

Of these 51 cases of schizophrenics with

GENERAL STATISTICS

	Total diagnostic group			Cases with family history		
	Male	Female	Total	Male	Female	Total
1. Manic-depressive	42	107	149	21	46	67 (47%)
2. Schizophrenic states	88	132	220	24	27	51 (23%)
3. Severe neuroses and anxiety states	172	297	469	28	24	52 (12%)
4. Schizo-affective states	4	5	9	1	—	1 (11%)
5. General psychopathic states	43	18	61	5	4	9 (15%)

SEX DISTRIBUTION

Diagnoses	Total	M	F	Mo-Sib	Fa-Sib	Sib-Sib	Similar conditions		Dissimilar conditions
Manic-depressive	67	21	46	22	8	42	Mo-Sib	19	3
							Fa-Sib	4	4
							Sib-Sib	23	21
								46	28
Schizophrenic states	51	24	27	21	7	29	Mo-Sib	10	11
							Fa-Sib	5	2
							Sib-Sib	21	8
								36	21
Severe neuroses and anxiety states	52	28	24	26	11	15	Mo-Sib	10	15
							Fa-Sib	5	8
							Sib-Sib	8	8
								23	31
Schizo-affective states	1	—	1	—	—	—	Sib-Sib	1	
General psychopathological states	9	5	4	1	4	4	Mo-Sib	0	1
							Fa-Sib	0	4
							Sib-Sib	2	2
Totals	180	78	102	70	30	90			7

in which as yet no such incidence was recorded. In other words, if one takes into account the fact that this mental disease may occur at different times of life, that one individual may have schizophrenia at 16, a brother or sister at 40, and a parent at any age, it becomes clear that the records which can be obtained at any time represent a lesser incidence of familial mental disease than would constitute the true situation.

family history the proband was male in 24 cases and female in 27 cases. The mother-sibling relationship occurred in 21 cases. The father-sibling relationship occurred in 7 cases. The sibling-sibling relationship occurred in 29 cases. The totals, therefore, are more than 51, which is understandable since these inter-relationships overlap throughout. This preponderance of the mother-sibling group is also present in

manic-depressive psychosis and is explained by a fact well known in the literature, namely, that mentally sick mothers have a higher marriage rate than mentally sick fathers, the reason for this being obvious in that, first of all, the male has to make a living which the mentally sick individual is rarely capable of doing. The sexual drive is diminished in most of the mental diseases and especially of the schizophrenic and depressive groups; and since marriage is largely dependent on the sexual drive of the male rather than that of the female, there is sufficient reason for the greatly lowered marriage rate of the male schizophrenic.

Similar psychoses occurred in the mother-sibling group in 10 cases; in the father-sibling group in 5 cases and in the sibling-sibling group in 21 cases, making a total of 36 cases in which schizophrenia or allied conditions appeared in all the individuals involved. In 11 mother-sibling cases the mental conditions were dissimilar. In the father-sibling group 2 were dissimilar, and in the sibling-sibling group 8 represented different mental states.

When the similar and dissimilar groups are studied, one thing seems quite clear—that it is in those cases which are more certainly schizophrenic that the similar mental disease occurs in the close relative. It is exactly in those cases in which the diagnosis is to some extent doubtful that dissimilar psychoses appear. In the main, the dissimilarity of these cases was in regard to manic-depressive psychosis or, at any rate, the depressive states. There were a few cases of severe neuroses, some of which were social anxiety states which I believe are related to schizophrenia. I have defined the social anxiety state as that in which the individual finds his greatest difficulty in the contact with other individuals and becomes greatly disturbed somatically and psychologically to the point of disability, excluding thus mere shyness or transitory stage-fright conditions. Such a family is here briefly mentioned in which one brother and one sister were classed as schizophrenia and were in institutions, while the two siblings in the community had severe social anxiety states with retreat from activity and general disability largely springing from their incapacity to meet other people with equanimity or ease.

In these dissimilar cases the following fact must be taken into account, there is a bilaterality of heredity. A mother may have manic-depressive psychosis. The children may present the symptoms of schizophrenia. When a study is made of the paternal side, although no individuals have reached institutions, strong indications of at least a schizoid temperament are found. This is the case in several instances in these cases of mine. The ostensible family history is one thing; the complete family history is another, and under the conditions of this research there was no possible way of ascertaining the true state of affairs. I shall deal with this matter in my recommendations.

It is commonly stated in the literature that the relationship of schizophrenia is more frankly collateral than direct; that is to say, aunts and uncles are more involved than parents, and cousins should be included in any study which deals with heredity. Unfortunately, such studies could not be done in this research. Moreover, while in several instances cousins and aunts or uncles were known to be involved by mental disease, I excluded them because the history of the uncles, aunts and cousins is imperfectly known by most families, and the statistics are too spotty to be of value. On any basis the percentage of known mental disease was high and of similar mental disease great enough to be beyond coincidence and definitely indicating a strong constitutional trend in schizophrenia.

DEPRESSIVE STATES

In the case of the depressive states, as is well known there is more mental disease of similar type than in any other condition. This is borne out in my statistics shown on page 332.

The cases with divergent diagnoses in the direct relatives were dementia præcox, constitutional psychopathic inferior, schizoid state, marked anxiety state, marked psychoneurosis, criminal deviation (1 case), psychosis with arteriosclerosis (1 case) and obsessive compulsive state.

The same general statement which was made in the case of schizophrenia applies

Total depressives		
Male	Female	Total
42	107	149

Depressives with family history		
Male	Female	Total
21	46	67 (47%)

Family distribution:

Mother-sibling	22
Father-sibling	8
Sibling-sibling	41

Disease distribution:

	Similar	Dissimilar
Mother-sibling	19	3
Father-sibling	4	4
Sibling-sibling	23	21

to the manic-depressive cases. Where the proband was clearly manic-depressive or, at least, presented a clearcut depressive state, the relatives, that is, brother, sister, mother and father, son or daughter, were almost universally classified as depressive states. Where, however, the diagnosis was not clear, where the patient had not been seen long enough or where even after long observation there were atypical features, dissimilarity—so-called—appeared in the relatives. The bulk of the cases classed as dissimilar were diagnosed as schizophrenia, a smaller percentage as severe psychoneuroses, with an occasional chronic alcoholic and constitutional psychopath.

The cases are too few for an elaborate statistical study. The general trend, however, is conspicuous and clear. Here we may again be dealing with bilateral heredity, that is to say, the dissimilar cases may possibly be due to traits and characteristics belonging to an unknown ancestor, but this is mere speculation and occasions only an exercise of ingenuity rather than depending on anything corresponding to proof.

SEVERE NEUROSES AND ANXIETY STATES

Of the total of 469 cases seen in this group during this period, 172 were male probands and 297 female probands. The cases with definite family histories of the type herein considered were 28 males and 24 females, the total being 52 or 11%.

I am not considering the heredity of the neuroses in this paper. In the first place, they are too widespread and too common for the group that any one psychiatrist sees to be representative or to be statistically valid. It will be seen that the percentage is far less than what one sees in the manic-depressive states or the schizophrenics. On the other hand, it is far greater than in the case of epilepsy or feeblemindedness. Moreover, the given family history, not the known family history, would multiply the number of cases by at least two and, in fact, when one gets to know any family long and well enough, the percentage of neurosis reaches almost 100. However, the same might be true if one took any normal individual and collected with detail and circumspection his family history.

All one can say at this time is that the situation cannot be cleared up in respect to the major neuroses by any short study and perhaps not at all under present day circumstances and with our current "understanding" of the neuroses.

GENERAL PSYCHOPATHIC STATES

The same is true of those cases which I have here labelled general psychopathic states, by which is meant character anomalies of one type or another, including sexual deviation, criminal conduct and the like. Such individuals numbered 61 as probands. The relatives known to me numbered 9, which made a percentage of about 15. Deviations in character are too common and too infrequently come to the attention of the psychiatrist for statistics of any validity to be gathered except by a long-time research.

DISCUSSION

I am, therefore, confining my discussion to epilepsy, feeblemindedness, the depressive states and schizophrenia.

Epilepsy.—In private and in hospital practice familial incidence is rare in epilepsy. Regardless of the similarity or dissimilarity

of brain waves, it seems to me to be much more likely that environmental factors are more directly responsible for epilepsy than the constitutional state. A constitutional predisposition may exist, but this is most certain of everything that happens to the human being or, for that matter, to any living thing. Whatever happens must be "happenable," to coin a word. If a stone falls on a skull, it is much more likely that the skull will be fractured than the stone. If the stone falls on sheet-iron, it is very likely that the stone will be fractured and not the sheet-iron. The fracturability of the skull pre-exists before the skull can be fractured. This is said in no flippant manner. The question arises, Is the predisposition of such extreme nature that it is mainly responsible for the condition which occurs? Thus, in certain diseases of bone, any trauma will fracture a bone. Such a fracture we may attribute to the fragility of the bone rather than to the environmental circumstances. On the other hand, any bone can be fractured by a severe enough blow. This kind of fracture we must attribute to the environment.

So it seems to me permissible to say at this time in respect to epilepsy, that in the main it is created by exogenous factors and can be reduplicated in anybody by exogenous factors, such as drugs, injury, infection, trauma, tumor and the like, and that there probably is no such thing as idiopathic epilepsy, a statement which has been made by many others. All one can say is that the larger group of epileptic cases remain of unknown origin after all the studies we can make are carried out to completion. The fact that monozygotic twins tend to have the same brain waves and also develop epilepsy in a considerable percentage of cases would be expected, since both the constitution and the environmental happenings are about the same in most cases of monozygotic twins.

Feeblemindedness.—Of this condition it can clearly be stated that in private practice—and this is true of a very much larger group than the one I have cited—feeblemindedness tends to be an isolated feature occurring in all kinds of families and relating usually to only one member of the family group. This is true, but to a lesser degree, when one studies families in a public school system. The percentage of families rises, but not at all to the extent one would be led to believe, if one took into account the classical family groups so often cited in the literature which have misled both psychiatrists and the public at large for at least two generations. The percentage is much greater than that found in private practice, but it does not equal the percentage I have seen in private practice in the statistics of schizophrenia or manic-depressive psychosis.

When one comes to the institutions the percentage rises still further but embraces only in the last analysis a small proportion of the cases in the institutions. One only occasionally sees large numbers of one single family in an institution for the feebleminded. The studies that have been done in the public institutions have not been complete. They have usually taken into account the degree of defect rather than the cause of defect. But so far as they go, they indicate a hereditary trend towards feebleminded-ness, but one which appears either in isolated family groups as a conspicuous factor or in individuals isolated from the rest of the family by mental defect, the rest of the family corresponding on the whole to the average of the community.

Depressive States.—When one turns his attention to the depressive states, a totally different picture at once appears. There is a very high incidence of family disease. Even when one excludes uncles, aunts and cousins whose incidence would have to be taken into account in preparing any Mendelian scheme of the inheritance of the depressive states, the proportion is appalling. When one takes into account the further fact that this mental disease may occur at any time of life and that at no time does one reach the full incidence of the disease in any family group, then the percentage obtained even in this study is conclusive for a familial trend of great importance. In other words, the incidence is so great that to neglect the constitutional factors is fraught with danger to the race, in that it is just these conditions which are the more treatable, which respond more to electric shock and other treatment, including psychotherapy; and that unless there is com-

bined with treatment a eugenic effort, psychiatry may do more harm than good to the human race.

Schizophrenia.—In lesser degree the same statements may be made of schizophrenia. The constitutional factor, even excluding the dissimilar conditions which may come from other ancestors and from other stocks, argues strongly for at least a constitutional factor in schizophrenia, if not a hereditary one. The fact that other workers have laid more stress on collateral ancestors makes the situation more grim in its genetic outlook.

Recommendations

I believe that the time is ripe for some suggestions for, let us say, a nation-wide study of the family incidence of mental disease. I was quite shocked in writing around to various institutions, first, to discover how poor their family histories were. In many instances my own records, collected without the aid of a social worker and by no other means than my own inquiry and the acumen of my secretary, disclosed much more familial disease than was obtained in an institution with social workers, resident staff and long-resident patients. Surely, when patients are confined for a long time in a hospital and there is a continuum of clinical study together with the opportunity for social investigation, records of familial incidence should be a routine part of the statistics of the institution. In no psychiatric institution to which I wrote did I find any familial division of cases which made possible an easy assembly of the familial incidence of mental diseases.

It is, therefore, recommended that special attention be paid for at least a generation to the gathering of facts concerning familial incidence of the mental diseases in custodial hospitals, in out-patient divisions, and in private practice. If this is done on a large enough scale and over a long enough period of time, the facts can be assembled in statistically valid numbers and with sufficient clarity of purpose to make conclusions possible on this all-important subject.

It would be better still to establish a national institute for the study of heredity in the mental diseases. This institute ought to operate for at least fifty years before the facts it could assemble would be of sufficient volume and validity to justify national and drastic action, or to state contrariwise that constitution and heredity played little or no role in the genesis of the various mental diseases. I do not believe that the latter would be the answer given by such a study.

It may be that our present classification and understanding is insufficient and that the categories into which we divide the mental illnesses have not enough substance behind them for a correct analysis of the value of environmental and hereditary forces in the creation of the mental diseases. The fact that most neuroses do not respond well to shock treatment while depressive states do is indicative of a sharp division between the biology and psychology of the depressive states and the neuroses. It may be that surgical operation, such as prefrontal lobotomy, will lead to new classifications according to results obtained. What is still more likely and still more hopeful is that tests of an objective kind will appear, so that we can classify the mental diseases by something much more clearcut than the impressions gained through psychological and other tests. It is much more satisfactory to have chemical and spinal fluid changes as indicative of general paresis than to depend on whatever psychological changes the patient presents. It is not likely that we will have this kind of pathology to give us our direction in the differential diagnosis of other and more baffling mental diseases; but I think it very likely that more subtle tests, yet to be evolved, will be of importance and give us a basis for understanding the constitution and heredity of these diseases.

All this need not deter us from looking more closely into the environmental bases of these mental diseases. As I have stated before this, all cats look grey in the dark, so that where little is known, much may be blamed on heredity, as was the case before the cause of tuberculosis became known. For example, the effect of the first great environment of man, the uterus, in producing deviation is utterly unknown, and no one has sufficiently followed the fate of the children born of difficult labor. The physiological exigencies are relatively simple; the psy-

chological pressures and distortions are complicated beyond words. Yet while what one experiences needs attention, the fundamental and inherited nature of the experiences must play a great rôle. What happens is important; to whom it happens is equally laden with destiny.

BIBLIOGRAPHY

General Heredity

Davenport, Charles B. Heredity in relation to Eugenics. Henry Holt & Co., N. Y., 1911.

Doering, C. R., and Raymond, Alice F. The reliability of observation in psychiatric and related characteristics. In "Schizophrenia. Statistical Studies from the Boston Psychopathic Hospital, 1925-1934."

Goldschmidt, R. "Progressive heredity" and "anticipation." J. Hered., **29**: 140-142, 1938.

———. Physiological genetics. McGraw-Hill Book Co., New York, 1938.

Hoffmann, H. Die Nachkommenschaft bei endogenen Psychosen. J. Springer, Berlin, 1922.

Jennings, H. S. The biological basis of human nature. W. W. Norton Co., New York, 1930.

Kretschmer, E. Heredity and constitution in aetiology of psychic disorders. Brit. Med. J., Part **2**: 403-406, Aug. 28, 1937.

Mohr, Otto. Heredity and disease. W. W. Norton Co., New York, 1934.

Mott, F. Heredity in relation to mental disease and mental deficiency. Brit. Med. J., **1**: 1023-1026, June 19, 1926.

Muller, H. J. Artificial transmutation of the gene. Science, **66**: 84, 1927.

Myerson, A. The inheritance of mental diseases. Williams and Wilkins, Baltimore, 1925.

———. A method of family study and some results. J. Nerv. and Ment. Dis., **44**: 76, 1916.

———. Psychiatric family studies. J. Nerv. and Ment. Dis., **44**: 348-352, 1916. Am. J. Insanity **72**: 355-486, Jan. 1917.

———. The relationship of hereditary factors to mental processes. Res. Publ. Assn. Res. Nerv. and Ment. Dis., **19**: 16-49, Sept. 1939.

———. Hereditary and social factors in psychiatry. (To be published.)

Pearl, R. The experimental modification of germ cells. I. General plan of experiments with ethyl alcohol and certain related substances. J. Exp. Zool., **22**: 125-164, 1917.

Rosanoff, A. J., Handy, L. M., and Rosanoff, I. A. Etiology of epilepsy with special reference to its occurrence in twins. Arch. Neurol. and Psychiat., **31**: 1165, 1934.

———. Constitution and health. Kegan Paul, Trench, Trübner & Co., London, 1933.

Schiller, J. Mendelian genetics and man. Presse med., **45**: 425-426, Mar. 17, 1937.

Schwesinger, Gladys C. Heredity and environment. The Macmillan Co., New York, 1933.

Timofeeff-Ressovsky, H. A. Induced gene-variations in Drosophila funebris. J. Hered., **21**: 167-171, 1930.

Wertheimer, F. I., and Hesketh, E. The significance of the physical constitution in mental disease. Williams and Wilkins, Baltimore, 1926.

Epilepsy

Brain, W. R. The inheritance of epilepsy. Quart. J. Med. **29**: 299-310, 1925-1926.

Burr, C. W. Heredity in epilepsy, a study of 1449 cases. Arch. Neurol. and Psychiat., **7**: 721-728 June 1932.

Cobb, Stanley. Causes of epilepsy. Arch. Neurol. and Psychiat., **27**: 5, May 1932.

Conrad, K. Heredity and epilepsy in discordant uniovular twins. Ztschr. f.d.g. Neurol. u. Psychiat., **155**: 509-542, 1936.

Davenport, C. B. Ecology of epilepsy. Racial and geographic distribution of epilepsy. Arch. Neurol. and Psychiat., **9**: 554-556, May 1923.

Echeverria, G. On epilepsy. William Wood & Co., New York, 1870.

Lennox, W. G. Science and seizures. Harper & Brothers, New York, 1941.

Lennox, W. G., Gibbs, E. L., and Gibbs, F. A. The inheritance of epilepsy as revealed by the electroencephalograph. J.A.M.A. **113**: 1002, 1939; Arch. Neurol. and Psychiat., **44**: 1155, 1940.

Malzberg, B. Mental disease among Jews: a second study with a note on the relative prevalence of mental defect and epilepsy. Ment. Hyg., **15**: 766-774, 1931.

Paskind, H. A., and Brown, M. Hereditary factors in epilepsy. Differences between deteriorated and non-deteriorated patients. J. A. M. A., **108**: 1599, 1937.

Penfield, W., and Erickson, T. C. Epilepsy and cortical localization. Charles C. Thomas, Springfield, Ill., 1941.

Stein, Calvert. Hereditary factors in epilepsy. Am. J. Psychiat., **89**: 989-1027, Mar. 1933.

Thom, D. A. The frequency of epilepsy in the offspring of epileptics. Boston Med. and Surg. J., **175**: 573-575, Apr. 1916, and **175**: 599-600, Oct. 1916.

Feeblemindedness

Brugger, C. Die Vererbung des Schwachsinns. Handb. Erbbiol., **5** (Part 2): 697-768, 1939.

Dayton, N. A. Survey of retarded children in public schools of Massachusetts. Am. J. Psychiat., **84**: 809-835, 1927-1928.

———. Mortality in mental deficiency over a fourteen-year period. Proc. 55th Annual Session, Am. Assn. Study Feebleminded, 204 ff., 1931.

———. New facts on mental disorders. Study of 89, 190 cases. C. C. Thomas Co., Springfield, Ill., 1940.

———. Influence of size of family upon the characteristics of the mentally deficient. Am. J. Psychiat., **91**: 799-832, Jan. 1935.

English, W. M., The feebleminded problem. Am. J. Psychiat., **88**: 1-8, July 1931.

Feeblemindedness Today. A review of some recent publications on the subject. J. Hered., 21: 421-430, Oct. 1930.

Fernald, W. E. After-care study of the patients discharged from Waverley for a period of twenty-five years. Ungraded, 5, 1919. (Quoted in "Eugenical Sterilization," p. 44.)

Fisher, R. A. Elimination of mental defects. J. Hered., 18: 529-531, 1927.

Goddard, H. H. The Kallikak family; a study in the heredity of feeble-mindedness. The Macmillan Co., New York, 1912.

———. The heredity factor in feeblemindedness. Institutional Quarterly (Ill.) Vol. IV, No. 2, June, 1913.

———. Feeblemindedness, its cause and consequences. The Macmillan Co., New York, 1923.

Herd, H. B. Sterilization of the mentally defective. The Lancet 2: 783-786, Sept. 1933.

Malzberg, B. Mental disease among Jews: a second study with a note on the relative prevalence of mental defect and epilepsy. Ment. Hyg., 15: 766-774, 1931.

Myerson, A. Hereditary relationship of feeblemindedness and schizophrenia. Proc. Am. Res. Nerv. and Ment. Dis., 5: 94-99, 1928.

———. Researches in feeblemindedness with special relationship to inheritance. Bull. Mass. Dept. Ment. Dis., 14: 108-229, Apr. 1930.

———. Nature of feeble-mindedness. Am. J. Psychiat., 89: 1205-1226, May 1933.

Pearson, Karl. On the continuity of mental defect. Dulau & Co., London, 1914.

Report of Mental Deficiency Commission, London, 1929.

Rosanoff, A. J. The etiology of mental deficiency with special reference to its occurrence in twins. Psychol. Monogr. Whole No. 216, 1937.

Skodak, M. The mental development of adopted children whose true mothers are feebleminded. Child Developm., 9: 303-308, 1938.

Tredgold, A. F. Mental deficiency. Balliere, Tyndall & Cox, 1929.

Wells, J., and Arthur, G. Effect of foster-home placement on the intelligence ratings of children of feebleminded parents. Ment. Hyg., 23: 277-285, 1939.

Wildenskov, H. O. Investigations into the causes of mental deficiency. (Translation from Danish by Hans Andersen.) Levin and Munksgaard, Copenhagen, and Humphrey Milford, Oxford University Press, London, 1934.

Woodall, C. S. The children of mentally defective and mentally retarded mothers. Proc. 56th Annual Session Am. Assn. Study of Feebleminded, Philadelphia May 26, 1932.

Schizophrenia

Barrett, A. M. Heredity relations in schizophrenia. Am. J. Psychiat., 84: 77-103, 1927-1928.

Brugger, C. Die erbbiologische Stellung der Pfropfschizophrenia. Ztschr. f.d.g. Neurol. u. Psychiat., 113: 348-378.

Casper, L. Ueber den erbgang der Schizophrenie und die Häufigkeit der schizophrenen Erbanlage. Palm & Enke. 1938.

Kallmann, F. J. Heredity, reproduction and eugenic procedure in the field of schizophrenia. Eugen. News, 23: 105-113, 1938.

Parker, G. H. Identical twins with dementia præcox. J. Hered., 17: 137, Apr. 1926.

Pollock, H. M., Malzberg, B., and Fuller, R. G. Hereditary and environmental factors in the causation of dementia præcox and manic-depressive psychoses. Psychiat. Quart., 7: 450-479, 1933.

———. Hereditary and environmental factors in the causation of dementia præcox and manic-depressive psychoses. Chapt. III. Family stock of dementia præcox patients. Psychiat. Quart., 8: 553-559, July 1934.

Rosanoff, A. J., Handy, L. M., Plesset, R. I., and Brush, S. The etiology of so-called schizophrenic psychoses with special reference to their occurrence in twins. Am J. Psychiat., 91: 247, Sept. 1934.

Rüdin, E. Zur Vererbung und Neuenstehung der Dementia Præcox. Monogr. aus dem Gesamtgeb. de Neurol. u. Psychiat., J. Springer, Berlin, No. 12, 1916.

Weinberg, I. Prognostication of heredity and possibilities of morbidity among male and female relatives of schizophrenics. Ztschr. f.d.g. Neurol. u. Psychiat., 112: 101-171, 1928.

Depressive States

Farr, C. B., Sloane, P., and Smith, L. H. The relative importance of hereditary factors in manic-depressive psychosis and involutional melancholia. II. Analysis of 175 cases. J. Nerv. and Ment. Dis., 71: 409-411, Apr. 1930.

Hoch, P., and Rachlin, H. L. Evaluation of manic-depressive psychoses in the light of follow-up studies. Am. J. Psychiat., 97: 831-841, Jan. 1941.

Luxenburger, H. Erbprognose und praktische Eugenik in cyclothymen Kreise. Nervenarzt 5: 505-518, 1932.

Myerson, A., and Boyle, Rosalie D. The incidence of manic-depressive psychosis in certain socially important families. Am. J. Psychiat., 98: 11-12, July 1941.

Paskind, H. A. Hereditary factors in manic-depressive psychosis. Arch. Neurol. and Psychiat., 24: 747-752, Oct. 1930.

Pollock, H. M., Malzberg, B., and Fuller, R. G. Hereditary and environmental factors in the causation of dementia præcox and manic-depressive psychoses. Chapt. II. Do Mendelian laws apply to the inheritance of manic-depressive psychoses? Psychiat. Quart., 8: 337-371, Apr. 1934.

Rosanoff, A. J., Handy, L. M., and Plesset, I. R. The etiology of manic-depressive syndromes with special reference to their occurrence in twins. Am. J. Psychiat., 91: 725-761, Jan. 1935.

Neuroses

Cook, S. W. The production of "experimental neurosis" in the white rat. Psychosom. Med., 1: 293, Apr. 1939.

Damrau, F. Experimentally induced neuroses in guinea pigs. Med. Rec., Apr. 17, 1940.

Dimmick, F. L., Ludlow, N., and Whiteman, A. A study of "experimental neurosis" in cats. J. Compar. Psychol., **28**: 39-43, 1939.

Liddell, H. S., Sutherland, G. F., Parmenter, R., and Bayne, T. L. A study of the conditioned reflex method for producing experimental neurosis. Am. J. Physiol., **116**: 95, 1936.

Myerson, A. Neuroses and neuropsychoses. The relationship of symptom groups. Am. J. Psychiat., **93**: 263-301, Sept. 1936.

———. Neuroses and neuropsychoses. Illustrative case histories. Am. J. Psychiat., **94**: 961-983, Jan. 1938.

———. Constitutional anhedonia and the social neurosis. J. Nerv. and Ment. Dis., **99**: 309-312, Mar. 1944.

———. The social anxiety neurosis—its possible relationship to schizophrenia. Am. J. Psychiat., **101**: 149-156, Sept. 1944.

———. The constitutional anhedonic personality. Am. J. Psychiat., **102**: 774-779, May 1946.

Miscellaneous

Freeman, F. N., Holzinger, J. J., and Mitchell, B. C. The influence of environment on the intelligence, school achievement, and conduct of foster children. 27th Yearbook of National Soc. for Study of Education, 103-218, 1928.

Isserlis, L. The relation between home conditions and the intelligence of school children. Medical Research Council, His Majesty's Stationery Office, London, 1923.

Lewis, E. O. Quoted by L. S. Penrose in: Mental deficiency. II. The sub-cultural group. Eug. Rev., **24**: 289-291, 1933.

Myerson, A. Errors in psychiatry. In "The Story of Human Error," J. Jastrow, Ed., D. Appleton-Century Co., New York, 1936, pp. 412-439.

INSULIN THERAPY AND ITS FUTURE[1]

EARL D. BOND, M.D., AND JAY T. SHURLEY, M.D., PHILADELPHIA, PA.

Having kept an insulin-shock unit active for over nine years we are thinking of the future. The unit is an expensive one. Does it pay? Doctor Nolan Lewis' paper(1) on the value of shock therapy in general has been used as a stimulus to our own thinking on this particular problem.

An idea which is probably accepted by everyone without much thought but which has startling implications is that the brain is the only organ of the body which feeds exclusively on sugars. It is further noteworthy that the actual metabolic rates of the various subdivisions of the brain decrease as the neuraxis is descended. In the light of Hughling Jackson's(2) conception of the phyletic organization of the central nervous system, which postulates that the newer phyletic and higher anatomic portions of the brain regulate and control the older and lower portions, and in view of the Pfister and others'(3) conclusion that in schizophrenia there is a disorder of the autonomic nervous system involving the entire organism, we are going a long way in removing insulin therapy from the realm of the purely empirical, and putting it on a firmer physiological basis. That Sakel's discovery should have hit directly at these principles is a most remarkable and fortunate coincidence. It must be admitted, however, that we are perhaps yet a long way from understanding the *modus operandi* of the response and often recovery of schizophrenic patients undergoing insulin therapy.

The discussion naturally begins with a description of the technique and the results. In the years 1936 to 1938 the aim was to produce stupor with the least possible dosage and the least number of convulsions. In the years 1939 to 1944 deeper and longer stupors were achieved by increasing the dosage and regarding convulsions as helpful incidents of therapy(4). Our present therapy is simply more refined in detail.

As it is now being given, a course of insulin shock treatments consists in roughly 30 to 60 stupors, given daily 6 days a week, without interruption until the end of treatment. The daily treatment is begun at 7 a.m. when the fasting patient is given his predetermined dose of insulin, either intramuscularly or intravenously, depending on certain indications. The dose of insulin for all patients is determined individually and adjusted daily according to reaction.

We are still experimenting with dosage procedures. Recently we have been obtaining encouraging results by using a rapid increase method, beginning with a dose of 50 units. Depending on reaction, we may increase the dose on successive days by the near-geometric progression of 100, 200, 400, 600, 800, and up to 1600 units. The dose is levelled off at the point where the initial stupor occurs within 3½ hours after the injection. After deep stupors have been achieved, the dose is then dropped equally rapidly to determine the minimum coma dose or insulin. From this point onward, the minimum amount of insulin required to produce deep stupor is given daily. This method has the effect of inducing coma very early, even in insulin resistant cases, and apparently at the same time inducing rapid sensitization to hypoglycemia and, most important, changes in the patient's mental symptoms very early in treatment. We would not recommend this method for use by other than a skilled therapist, but we shall discuss fully the details of our departure from custom in dosage in a forthcoming paper.

The dose is so adjusted that the patient goes into a stupor by 9 a.m. The stupor is allowed to continue for a maximum of two hours and is interrupted sooner only if signs of dangerously deep coma warrant. ("Stupor" is measured from the time the patient can no longer be consciously aroused and includes the term "coma"). The deepest

[1] Read at the 102d annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

Aided by a grant of the John and Mary R. Markle Foundation.

possible stupors consistent with safety are induced daily and no "light" stupors are given. Routinely the stupor is interrupted by administration of 50 c. c. of 25% glucose intravenously, followed by a palatable drink of Karo syrup, lemon juice and water. This drink contains roughly sufficient carbohydrate to balance the insulin dose administered, calculated on basis of 2 grams of carbohydrate to 1 unit of insulin. The patient is given a full breakfast in bed and then allowed to return to his room to spend the remainder of the day in the usual hospital program of occupational therapy, hydrotherapy, etc. Selected music before and after stupor is a regular part of the insulin program in our unit.

Routinely, patients are given vitamin supplements to their diet which, with the exception of breakfast, is regular hospital fare. Also, fluid intake is limited throughout the day to a maximum of 1500 to 2000 cc.

Electroshock or metrazol convulsions are administered to patients in combination with insulin stupor in courses of about 3 to 12 treatments, to roughly half of all cases treated. This is usually given near the end of the course of insulin therapy in those cases who are not quite well, or show no improvement from insulin therapy alone. The patient is allowed a day's rest after a convulsion, no matter what its origin.

Besides psychiatric examinations enabling a diagnosis of schizophrenia to be established, and careful physical and neurological examinations, preparation for the treatment consists of a routine electroencephalogram, a fasting blood sugar, and roentgenograms of the chest and lateral thoracic spine. We also do intravenous pentothal interviews with each patient in an attempt to establish the value of this procedure in estimating prognosis with insulin therapy. An electrocardiogram is done only if indicated by physical findings. Also before coming to treatment the patient is given small doses (5 units) of insulin daily for a week to test for unusual sensitivity to hypoglycemia, as well as allergy to insulin.

Contraindications to insulin shock therapy diminish in number and gravity as we become more experienced with the therapy. For such a physiological form of treatment there should be few, if any, absolute contraindications. Actually, however, the risks are greater in those individuals who have serious heart, liver or kidney disease, in those who have convulsive disorders, in diabetics, in those who have no superficial veins accessible and in those over forty-five years of age. Pregnancy, *per se,* is no contraindication. Presence of tuberculosis or other infection is, of course, a definite contraindication.

Psychotherapy for patients who go to an organized insulin unit has taken a form determined by the circumstances. Patients hear of the special treatment not only from their physicians but from the nurses and other patients; they see for themselves its good results in patients who have been through it and returned to the wards. In the unit they receive much attention; are on special diets; are impressed by the medico-surgical proceedings; and they are recipients of special nursing attention all day. Apparently the insulin—the hypoglycemia—produces the first psychological change in the patient: "Things seem to clear; a veil was taken away; I felt myself part of the world again." Of course many patients do not take this step. If they do, they at once feel the interest and satisfaction of the unit's physician and later on, returning to their rooms, they meet the interest and often enthusiasm of nurses and fellow patients. Interviews with the physicians assigned to the study of each patient before and during and after treatments allow fantasy to be understood and help the patient look forward. Most patients who first change with insulin seem to gain by these interviews, but it must be said that some who do not seem to be affected at all by psychotherapy go on to full recovery.

A resemblance to "total push" is suggested by the patients' schedule, but something is added.

Undoubtedly insulin shock is a drastic treatment and many complications can occur. In a series of 400 patients there were 4 deaths, but it is noteworthy that there have been none in the past four years.

The principal complications of the treat-

ment that we have encountered in order of importance are:

A. Those which may result in death:
   1. Prolonged or irreversible stupor.
   2. Respiratory complications.
   3. Circulatory complications.
   4. Intracranial hemorrage.

B. Less serious complications:
   1. Convulsion of epileptic type.
   2. Transient cardiac abnormalities.
   3. Nausea and vomiting.
   4. "After shock."
   5. Insulin allergies and anaphylaxis.
   6. Neurological symptoms.
   7. Organic mental reactions and confusion states.

Prolonged or irreversible stupor has accounted for approximately one-half of all insulin deaths. Its treatment is not nearly so important as its prevention, and in this we have been extraordinarily successful of late. Of the last 75 patients treated, covering an 18 months' period, we have had none, despite our deep stupor levels. We attribute this record to close observation of patients, the routine use of intravenous glucose for awakening, and the routine limitation of fluids throughout period of treatment. We treat the condition, immediately it is diagnosed, with intravenous sucrose or sorbitol, thiamin chloride, and concentrated human plasma, as described by Rivers and Rome(5).

In reporting our results in the next paragraphs suggestions made by Dr. Nolan Lewis are followed as far as possible. Statistics are given only on those patients diagnosed as schizophrenic.

In the first place patients were selected for this treatment for many different reasons, as will be seen below.

(a) There were 11 patients who were 12 to 16 years old at the time of insulin treatment. Of these 9 had some indications of schizophrenia since childhood (seclusiveness, eccentricity, suicidal impulses) and the outlook was considered hopeless before treatment started: none of these showed any gain. In the other 2 the early childhood history was negative or fairly good and the results follow. A girl of 15 had year-long remissions after two series of insulin treatments and one of electric shocks. A boy of 16 was not improved under insulin but six months later was reported recovered after metrazol.

(b) There were 62 patients who had a clear history of unbroken illness for more than 4 years before treatment. In many cases insulin was urged "as a last resort," often by relatives. A very poor prognosis was given for this group which was justified by results, although there were some surprises.

Of these patients 36 showed no gain at all; 8 showed slight improvement. Eight others showed remissions respectively of 1 month, 2 months, 10 months, 18 months, 1 year, 2 years, and 4 years duration. Four patients were greatly improved and are now self-supporting. One patient improved after insulin and recovered a year later to remain well. Five patients made recoveries which they have held.

Nearly 25% of good results at the end of treatment and 16% of well maintained good results was a better outcome than was expected.

(c) There were 133 patients in whom overt symptoms had been observed by the family for less than 18 months before the use of insulin.

Of these patients 27 showed no gain at all and 15 showed slight improvement. Another 29 had good remissions followed by relapses; and still another 4 had remissions, relapses and other remissions after a second course of insulin. Then 4 patients unimproved by insulin recovered later. There were left 52 who made recoveries and held them without incident.

In this group there appeared 63% of good results at the end of treatment and 39% of maintained good results.

(d) A rather surprising effect was seen in those cases which showed an intermittent onset; to the families these patients showed sporadic outbursts of psychosis interrupted by times of apparently normal behavior. There were 39 of these with 24 remissions at the end of treatment, or 61%. Of the 24 remissions 9 relapsed but 2 patients not recovered at the end of treatment recovered later.

Any detailed study of the pre-psychotic

personality leads into too many complicated tangles to be of use at this time. However, 20% of the patients were characterized as having been either "sociable, extroverted or able to get on with other people." Again it was unexpected to find that this apparently favored group at the end of the insulin treatment showed only 43% recovery rate.

Of 309 schizophrenic patients treated over a 10 year period in an insulin unit 48.8% were recovered or much improved at the end of treatment, 47% at the end of the next 30 days, 43% at the end of the first year, and 37% at the end of five years.

This compares to a recovery-much improved rate of 16% for control cases under hospital treatment without insulin or other shock treatment.

The more remarkable consistently held recoveries follow: "For 6 years on civilian air transport, arranging transportation—two promotions." "For 6 years teaching, more outgoing and generally better than ever before in his life." "For 8 years teaching and interested in social activities." "Seven years of successful life as army officer and as engineer." "In 7 years has had good health, been married, had a baby, lost her husband in service, surmounted all difficulties." "In charge of large hospital." "Did well in a Japanese prison camp."

The one patient in whom neurological damage could be seen developed convulsions and tremor of one hand about a year after the last insulin treatment, but this patient had had 16 metrazol shocks before entering our unit and had a series of electric shocks after leaving our hospital.

As we look over our results, we come to the conclusion that an insulin unit is not too expensive to continue for the next few years. The striking fact that the good responses to treatment are immediate deserves more emphasis than it gets. Even the transitory improvements seen in very chronic patients in the middle of treatment are medically important and of great help to other patients.

The modifications of technique which we have worked out will be continued as they seem to provide more safety.

In the future we should prefer to treat patients in the first 18 months of their illness and especially those in whom there is an overt or concealed paranoid trend, but we shall have to treat others less promising. We shall need the more active collaboration of a physiologist, a bio-chemist, and a more intensive study of the psychological reaction of the patients to such stimuli as the approach of coma and the occasional nearness to death.

BIBLIOGRAPHY

1. Lewis, N. D. C. What's what about shock therapy. Ment. Hyg., **30**: 117-185, 1946.

2. Jackson, J. H. The Croonian lectures on evolution and dissolution of the nervous system. Brit. M. J., **1**: 591-93, 660-663, 703-707, 1884.

3. Pfister, H. O. Disturbances of autonomic nervous system in schizophrenia and the relationships to insulin-cardiozol and sleep treatments. Supp. Am. J. Psychiat., **94**: 109-118, 1938.

4. Bond, E. D., and Rivers, T. D. Further follow-up results after seven years. Am. J. Psychiat., **101**: 62, 1944.

5. Rivers, T. D., and Rome, H. P. Prolonged insulin coma in the treatment of schizophrenia. Arch. Neurol. and Psychiat., **51**: 550, 1944.

JAPANESE NEUROPSYCHIATRY[1]

COLONEL HENRY A. COTTON, JR., M.C., A.U.S.,

AND

COLONEL FRANKLIN G. EBAUGH, M.C., A.U.S.

In general, Japanese medical standards are inferior to those found in the United States and Britain. Physicians are not well trained; hospitals and public health projects are not as well organized or as modern. During the last five years, the Japanese have shortened their medical course from four to three years, and have been turning out doctors who, they admit, are inferior, even by their standards.

In psychiatry, in particular, Japan is far behind the United States. Their practice has developed largely under German influence, and it is still dominated by the teachings of Kraepelin and Bleuler. General practitioners are not well oriented in psychiatric problems and consultations in this specialty are far less frequent than in the United States. This does not mean, however, that the Japanese are totally unaware of or indifferent to psychiatric problems. As far back as 1900, they passed the law of Custody of Insane Persons, which provided that the insane be either confined in institutions or, if they remained at large, be under the custody of guardians appointed by law. In 1919, the Mental Disease Hospitalization Law was passed, requiring local prefectural governments to establish and maintain hospitals for the mentally ill.

At the beginning of the present war, the home islands of Japan had 143 mental hospitals with a total bed capacity of 21,883. A number of these hospitals were private and went out of existence during the war. No accurate figures are available on the number of hospitals that are now in operation, but it is estimated that it is less than one-half the pre-war figure. These statistics apply only to civilian hospitals and not to the military which will be discussed later.

Exact information regarding the incidence of mental disease is difficult to obtain. Many cases undoubtedly remain in the community undiagnosed and unreported. Schizophrenia and manic-depressive psychoses apparently have the same relative incidence as in the United States, although manic cases may be less frequent. General paresis is more common and accounts for about 22 percent of all admissions to mental hospitals.

It is the impression of Japanese psychiatrists that psychoneuroses occur among their civilians approximately as they do in the United States and Britain. The exact manifestations of psychoneuroses were not determined in detail. However, it can be said that they included a high incidence of psychosomatic complaints. Also, conversion hysterias are apparently more common, although the Japanese use this term to include a number of other conditions. Neurasthenias also occur in limited numbers. Psychopathic personality is a recognized condition.

Epilepsy and mental deficiency are not regarded as special problems and separate hospitals for such cases are not provided. The Japanese have a law for sterilization of mental defectives; however they do not enforce it very rigidly. There more attention is paid to the individual desires of parents than one would expect in a totalitarian state.

Societies

The most important is the Japanese Association for Psychiatry and Neurology which, before the war, was composed of approximately 1,000 members. A journal was published monthly but was discontinued during the war.

There is also a Mental Hygiene Association with a membership of approximately 800 including not only psychiatrists but welfare workers, teachers, police and government officials. Their journal was also suspended during the war.

Other organizations include small associations for psychoanalysis and the study of conditioned reflexes.

[1] Read at the 102d annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

Medical Schools

The two leading medical schools of Japan are located in the Imperial and Keio Universities in Tokyo, and these were visited to learn something about the program for psychiatric education.

The neuropsychiatric set-up at Imperial University was organized as the so-called Brain Research Institute. This institute was divided into three departments: neuroanatomy, neurosurgery, and psychiatry. The entire institute was under the direction of the professor of psychiatry. Dr. Yoshi Uichimura.

The department of anatomy was devoted to the gross and microscopic study of the brain and nervous system. It was housed in a separate building, and its facilities included a rather extensive collection of human and comparative neuroanatomical material. It served the same purpose as the division of neuroanatomy in other medical schools. While some research has been done in the past, its main function at present is teaching first year medical students.

The department of neurosurgery was located in the main surgical clinic and appeared to have no connection with the department of psychiatry except in name as part of the Brain Research Institute. The work of this department is essentially beyond the scope of this report.

The department of psychiatry was housed in a separate building which superficially bore some resemblance to the general set-up at such teaching clinics as Phipps and Payne-Whitney in the United States. The wards accommodated approximately 80 patients, who were admitted chiefly for teaching purposes. This building also housed a number of conference rooms, lecture rooms, laboratories and a library.

The psychiatric teaching program at Imperial University included a first year course in brain anatomy and physiology of approximately twenty hours. In the third and fourth years the students were given a course in clinical psychiatry, which included lectures, demonstrations and some practical work on the wards and in the outpatient clinic. The number of hours was somewhat variable, depending on the student's own interest. Apparently the work in the fourth year is partly on an elective basis, and the students interested in psychiatry can spend considerable time in that field.

Dr. Uichimura reported that in normal times there were approximately 40 psychiatrists on the staff, but that during the war this number was reduced to 14.

The psychiatric department at Keio University was under the direction of Dr. Schichiburo Uyematsu who had had training at Harvard and Johns Hopkins. Keio University, unlike Imperial, had suffered destruction of many of the buildings due to bombing. The psychiatric building had been entirely destroyed and the department had been reduced to some 15 beds on the general medical ward and a few offices in the main building. Nevertheless, it was the impression, not only of the writers, but of all the medical officers who visited the two universities, that the work at Keio was generally superior to that at Imperial. The psychiatric staff at Keio had originally consisted of some 30 psychiatrists but was reduced to about 10 during the war. The course was also reduced from four to three years.

The psychiatric teaching program at Keio began in the second year with fifteen hours devoted to general psychiatry which consisted of etiology, general pathology of mental disorders, and psychopathology. In the third year, thirty-five hours were devoted to special psychiatry, which included a detailed description of the various types of neuroses and psychoses. Also included in the third year was a ten hours course in mental hygiene, which was sub-divided into eugenics, legal aspects of sterilization, mental hygiene of childhood and forensic psychiatry. In normal times, the fourth year included forty-five hours of clinical demonstrations of actual psychiatric cases and work on the wards. During the war this was cut to twenty-five hours and was given the third year.

Both Drs. Uichimura and Uyematsu seemed to be fairly familiar with the general principles of American psychiatry up to about the time of the war. They both knew all about the psychiatric set-up in the U. S. Army during the first World War, and were quite emphatic in saying that the Japanese Army had nothing comparable to it in the present conflict. They felt that, in general

Japanese civilian psychiatry was at least twenty years behind the United States.

There are certain rather marked differences between the practice of psychiatry in Japan and the United States which are worth noting. For example, clinical psychologists were not used at all, although both universities maintained departments of psychology. Apparently the psychologists there were rather jealous of their own prerogatives and did not wish to cooperate with the psychiatrists. The Japanese were familiar with our Army Alpha tests, Binet and other standard psychometric tests, as well as the Rorschach. However, all such tests had to be carried out by the psychiatrists themselves. The Japanese had no psychiatric social workers or other personnel comparable to them.

The Japanese system of internships and residencies was somewhat indefinite and much less formal than ours. For example, in Japan, when a medical student graduates, he makes a rather informal arrangement with the chief of service to work in that department. There is no regular appointment or time limit. The recent graduates seem to function somewhat as our internes do except that they do not live in the hospital. They do have an arrangement whereby at least one of them sleeps in the hospital every night on a rotating basis. This informal association with the hospital may end in a year or two or may go on for a number of years, until the individual considers his training complete and goes to another hospital or into private practice. In the latter case, he may continue his association with the hospital indefinitely. It should be emphasized again that such associations are entirely informal. The only physicians whose names appear in the university catalogues are the full professors and a limited number of full-time associates. During the period of training or "internship," the physician is first occupied with taking care of ward patients and working in the outpatient clinic. As time goes on, if he shows sufficient promise, he is given an opportunity for research and to assist the older men with teaching.

The nursing course in Japan covers two years, and two years of formal education—something like high school instruction—are required before applicants are accepted. During the two years the nurses receive three to six months of psychiatric training, depending upon the hospital. Japanese nurses in general, however, do not occupy quite the same position either socially or professionally that our nurses do. They do not enter into the psychiatric treatment program as they do in most of our psychiatric hospitals, nor do they keep case records or notes as our nurses do. Certain Japanese nurses are trained in public health work and some of them do work which closely approximates that of our medical social workers, but this function apparently has not extended into the psychiatric field in any way.

Civilian Psychiatric Hospital

Japanese hospitals in general were maintained, in comparison with those in the United States, on a much lower level of sanitation and cleanliness. Plumbing was available in some, while in others, human excreta were handled in wooden buckets. In some places beds were used and in others the patients were on mats on the floor. Bed clothing and patients clothing, were generally not very clean. Psychotic patients, as a rule were kept in locked wards or rooms. Bars, if present at all, were usually outside the glass and, frequently, wards and rooms were separated by glass partitions. There was very little evidence that the patients ever broke the glass, and the Japanese psychiatrists said that they believed their psychotic patients were generally less violent and destructive than ours. Mechanical restraint was not seen at all, and isolation rooms were used apparently very rarely. The more docile behavior of Japanese psychotic patients might be explained by the general cultural background of the people, who are more accustomed to discipline and regimentation and, consequently, accept institutional life more readily. Males and females were housed on separate wards but separate toilets and baths were not always available.

Careful inquiry was made as to the attitude of nurses, and particularly attendants, toward psychotic patients. As far as could be determined, such personnel regard their patients as sick and are as sympathetic and

kindly in their handling of them as is possible under the circumstances. Japanese psychiatrists denied that brutality on the part of attendants was any problem or ever occurred. If this is actually true, it might be explained by the fact that Japanese psychotic patients are generally rather passive in their acceptance of hospitalization and do not react aggressively against it. The attendant's job is therefore much easier.

The treatment of psychoses included the various forms of shock therapy, such as insulin, metrazol and electroshock. Insulin was difficult to obtain because of the war as were electroshock machines for the same reason, so that metrazol and cardiazol were rather widely used. The Japanese all denied any complications of shock therapy, such as fractures, but their pre- and post-shock examinations were very sketchy, and no x-rays were made at all. It is difficult to make a definite estimate as to the results of this treatment. One gained the impression that the Japanese tended to be over-optimistic about the results of shock therapy in general. General paresis was treated chiefly by malaria, although typhoid vaccine was occasionally used. It was admitted that such radical forms of treatment as dengue and tsutsugamushi fever had occasionally been used in the past but that such treatment was on the whole ill-advised.

There was a good deal of talk about occupational therapy and athletics among the patients but very little evidence of this was seen. In visiting most Japanese psychiatric hospitals one was struck by the fact that the patients seemed to be always sitting around doing nothing. However, as the oriental attitude regarding activities and leisure time is very different from ours, this may not have been quite as undesirable there as in our country. The hospitals located outside the city all had farms or vegetable gardens, and most of the work was done by patients, forming a crude sort of occupational therapy.

Group therapy apparently had not been used at all in the civilian hospitals.

The treatment of psychoneuroses was extremely difficult to evaluate. Apparently, there are no formal schools of psychotherapy in Japan. Many of the psychiatrists are familiar with Freud's work, but very little analysis is carried out except by Professor Marui and his group at Sendai. In general, the psychotherapy is pretty much up to the personal whim of the individual psychiatrist. It was determined that psychotherapy consisted of an effort on the part of the psychiatrist to explain the patient's symptoms in a manner which he could understand and to reassure him. Hypnosis was apparently used to a limited extent by a small group of Japanese psychiatrists. Sedatives seemed to be used rather freely. The Japanese apparently were not familiar with narco-synthesis and when this was explained to them, they asked a number of questions and seemed eager to learn the technique. The duration of treatment, number of therapeutic interviews, was again up to the individual psychiatrist. However, it seemed quite definite that the Japanese do not use prolonged therapy, and that they tend to have much shorter contacts with their patients than we do. It was impossible to obtain an accurate evaluation of the results of psychotherapy. Some of the psychiatrists felt that they were able to help a certain number of their patients while others did not seem to benefit by the treatment.

In addition to ward treatment the larger hospitals and university clinics all maintained outpatient psychiatric services. These handled cases referred from other departments, from practicing physicians, and to a limited extent, from schools and courts. The Japanese psychiatrists all understood the principles of mental hygiene, but were frank to admit that they were a long ways behind the United States in this field. However, when one considers the general background of the Japanese people and their religious and political culture, it is remarkable that they have any mental hygiene at all.

Military Neuropsychiatry

Detailed information on Japanese military neuropsychiatry was extremely difficult to obtain because of the fact that publications in this field were discouraged by the Government. Certain facts, however, were fairly definitely established.

During the early phases of the war, both the Army and Navy apparently had psychological examinations which were applied to

personnel at the time of induction. These are said to have been somewhat similar to our own Army Alpha tests. However, their use was rather generally discontinued except by the Air Corps. No figures are available as to the number of individuals rejected on the basis of these tests, but the Army and Navy medical officers both felt that the numbers rejected were not large in either case.

Neither the Army nor the Navy made any provision for full time neuropsychiatric consultants at any level. They occasionally consulted civilian authorities as to the general aspects of the problem of war neuroses. Also, the Army and Navy medical schools devoted a few hours of instruction to the subject of neuropsychiatry. These courses were generally given by civilians and details were not available. Moreover, only a small percentage of Japanese military surgeons actually attended these courses. The Navy estimated that they had only 6 qualified psychiatrists and these were used in the larger Naval hospitals. The Army estimated that they had approximately 50 psychiatrists, who also were used in the large base hospitals.

There was apparently no provision for front line, division, corps or army psychiatry. Neuropsychiatric conditions generally were unrecognized or were regarded as disciplinary problems during the early stages. Psychoses were eventually recognized as such. Some of the psychoneuroses were also eventually recognized, while others, particularly psychosomatic cases, were regarded as organic and often discharged as medical or surgical.

An attempt was made to find out something about the nature of war neuroses. Apparently the Japanese classify many more conditions under the classification of hysteria than we do. Even allowing for this, it appeared quite definite that the majority of Japanese war neuroses were either some form of conversion hysteria or psychosomatic complaints. Anxiety neuroses appeared to be far less frequent than in our personnel.

Apparently no effort had been made to correlate the incidence of neuroses with the individual's past history and adjustment in civilian life. However, both Army and Navy authorities were very definite in saying that war neuroses was commonest in individuals who had entered the service by conscription and that such conditions were extremely rare in volunteers and almost nonexistent in officers.

No figures are available as to the total number discharged from the Army or Navy for psychiatric reasons, although some of the Army men estimate the percentage as somewhat less than that of the United States during the first World War.

No effort has been made to follow up discharged war neurosis cases or to study their adjustment after return to civilian life. The Army psychiatrists generally felt that many of these cases probably improved after discharge. The Assistant Surgeon General of the Navy, Adm. Dr. Ykanbayasi, said that he was quite sure that all of these patients got well as soon as they were discharged.

The Japanese Army maintained three hospitals on the home islands for the treatment of neuropsychiatric cases. Two of these were on Southern Honshu and had about 500 beds apiece. The third was the Konodai Army Mental Hospital on the outskirts of Tokyo.

The Konodai Hospital was originally planned as a 1,000 bed neuropsychiatric institution. However, during recent months, 300 of these beds were taken for various surgical cases, such as amputees. The hospital was under the command of Colonel Keisaburo Suwa. This officer spoke no English and had to be interviewed through an interpreter. He seemed to have a good grasp of modern psychiatry and to be familiar with the work of American and European psychiatrists up to about five years ago. He was quite familiar with the neuropsychiatric setup of our Army during the first World War and was quite frank in saying that the Japanese Army was far behind us in this field. His records appeared to be fairly well kept and the hospital to be generally well organized. It was cleaner than most of the civilian hospitals and there was more help. During the early years of the war, there were 24 medical officers, but at the time of this visit in October 1945, the number had been cut

to 12. There were also approximately 100 male and female attendants.

About 20 percent of the patients at Konodai were war neuroses; 42 percent were "dementia præcox," and 3.5 percent were manic-depressive psychoses. It is interesting that general paresis accounted for only 10 percent of the patient population, which is only half the rate found in civilian hospitals. This is apparently due to improved treatment of venereal diseases among military personnel. The remainder of the cases were brain injuries, epileptics, alcoholics, drug addicts and psychopaths.

Colonel Suwa said that he occasionally sent war neurosis patients back to duty but they were discharged because the Army authorities never followed his recommendations as to type of duty. He also reported that no patients were discharged until they were completely cured; however, he probably meant until they had reached maximum benefit from hospitalization, as he admitted later that some were discharged partly cured. With regard to schizophrenia, he reported 16.3 percent complete cures, 40.7 percent partial cures, 16.6 percent improving satisfactorily, 21.5 percent undergoing treatment, and 4.9 percent deaths.

While the Japanese have a form of Veterans Administration, it is apparently chiefly concerned with pensions and financial assistance and does not maintain any hospitals. The place of veterans hospitals is taken by such institutes as Konodai, where military patients remain until they are able to return to community life, regardless of length of time in hospitals.

Reaction of the Japanese Population to the War and to the Occupation

As one would expect, the Japanese people were extremely cooperative as regards the war effort. They blindly obeyed the Emperor and the government and there was no opposition whatever to the conduct of the war. It is worth mentioning, however, that the civilian psychiatrists all reported a reaction by the people to the initial bombing of the home islands. The psychiatrists themselves offered the information that since the people had not been warned that they might be bombed, they reacted rather badly to the initial bombings, developing hysterias and other neurotic conditions. There is no information as to the total incidence of such reactions, and apparently they tended to level off as time went on.

It is doubtful whether the general population ever knew enough about the atomic bomb to react very definitely toward it. Also, the war ended very quickly after the atomic bombing, and many of the people did not hear of it until after the war was over. In both Hiroshima and Nagasaki, the people appeared extremely sullen and resentful when our occupation troops came in. This cannot be considered unusual, in view of the tremendous destruction and loss of life in those two cities. Unfortunately, the Army medical committee studying atomic bomb casualties did not have a psychiatrist. The medical men and surgeons on this committee have reported that they did not notice any particular psychiatric reaction among the atomic bomb victims of ordinary bombing. Fortunately, the Army and Navy Committee which has recently begun to study the effects of bombing on the general population includes a qualified psychiatrist, Commander Alexander Leyton.

The reaction of the general population to the occupation is interesting and worth describing. When our troops first entered Yokohama, the people generally kept out of the way and seemed to expect rather bad treatment at the hands of our troops. As time went on and no raping and pillaging occurred, they gradually began to appear on the streets. Fraternization was at first forbidden by the Japanese Government, but gradually took place in any case. The children in particular made friends with the G.I.'s and the girls gradually followed. The Emperor recently came out in favor of fraternization which is now rather widespread. The common people seemed to be very happy about the occupation due apparently to two definite causes. In the first place, the people were greatly relieved when the strain of war had ended and they no longer had to fear death and destruction by bombing. Then,

too, the good treatment which they received by our troops was so unexpected that it became a general cause for rejoicing. People in general seemed to be enjoying their new found freedom. The women were getting ready to vote. The population were holding mass meetings, striking, and generally behaving in a rather democratic fashion. While some of this behavior was obviously insincere, there did seem to be a certain number of Japanese people who actually wanted a democratic form of government.

Conclusions

Evidence has been presented that the Japanese, despite marked differences in background and culture, are psychobiologically similar to the people of the western nations. They react, with minor differences, to environmental situations and psychogenic stimuli very much as we do. The sociological and political importance of this observation is obvious in the formulation of plans for the future of Japan.

AN IMPROVED INSTRUMENT FOR THE DETERMINATION OF CHANGES IN THE PAIN THRESHOLD CAUSED BY DRUGS[1]

FREDERICK B. FLINN, PH. D., AND A. S. CHAIKELIS, PH. D.

Considerable interest has been aroused in the last few years regarding the algesimetric procedure for measuring pain threshold and the lasting effect of an analgesic drug on the pain threshold.

The studies reported can be divided into two groups: (1) those which were merely interested in determining whether or not different physiologic-pathologic conditions existing in the body lowered or raised the normal pain threshold of an individual; (2) those which were concerned with the effect of an analgesic drug on the pain threshold and the length of time that analgesia lasted.

Pain threshold may be defined as the amount of stimulus which will just barely produce a painful sensation under given conditions. The stimulus used may be of a chemical, mechanical or electrical nature. One has to be careful that the method used does not damage the tissue subjected to the stimulation. This is important when one is determining the effect of a drug on raising the pain threshold, that is, the height of the increase and the length of time that the effect of the analgesia exists. Furthermore, one must take into consideration whether or not the subject being tested has a cold, is fatigued, or constipated. Tests cannot be made when the invisible perspiration present on the skin of the subject is increased by either the temperature of the body or environmental conditions. The ideal conditions in which to determine the pain threshold is in an air conditioned room where the temperature can be kept around 20° C. and 25 percent humidity. Sweating causes a decrease in the effectiveness when the stimulus is heat.

We have experimented with the various methods of algesimetric measurements that have been described in the recent literature and have come to the conclusion that the method described by Hardy, Wolff and Goodell(1) is the most reliable. However, in using the Wolff technique we came across what seemed to us to be various flaws and chances for error.

We shall describe an improved instrument which we feel is as nearly automatic and impersonal as can be devised at the present time. Unfortunately we have to depend on the individual for the subjective sensation of pain. For an accurate study of a drug it is necessary to familiarize the subject with the pain sensation for a short period of time. For this reason we do not feel that one can take a person off the street and make accurate observations for the comparison of one drug with another.

The apparatus (based on the idea suggested by Dr. Wolff and his associates) consists of a 1000-watt projection lamp bulb housed in a cylindrical metallic chamber containing a highly polished parabolic reflector. The light from the bulb passes through a circular aperture which is in direct line with the special concentrated filament of the lamp. The beam of light passes through a two-lens-component condenser so adjusted as to bring the beam to a focus calculated to be ½ cm. from the surface of the exposed skin area (the focal point being inside the skin). The skin area exposed is restricted to an area of ¾ inch diameter (3.5 cm.²) circle by a fixed screen aperture. The subject places his forehead firmly against this aperture when undergoing a test.

The intensity of illumination produced by the 1000-watt lamp is automatically increased from a determined minimum by an arrangement of gears operated by motors (r.p.m. adjustable) controlling a power-

[1] From the Division of Industrial Hygiene, Columbia University, School of Public Health, New York City, N. Y.

Grateful acknowledgment is made to the Whitehall Pharmacal Co. who supplied funds that made it possible to carry on this work.

stat (a variable resistor for a.c.). The duration of exposure of this light is again automatically timed by an electrically operated interval timer controlling an electromagnetic shutter. The aforesaid duration of exposure is fixed at 3 seconds.

Variations in the line voltage are eliminated by means of a Sola constant voltage transformer with a primary voltage ranger of 95-125 volts with a rated V.A. of 1000 so that the secondary delivers 115 volts at 8.7 amps.

The intensity of illumination is measured with a specially designed vacuum thermocouple of 10 ohms resistance. This intensity is then recorded in millivolts with a sensitive millivoltmeter. The measuring vacuum thermocouple is fixed in position in a wooden block so that when it records the intensity of illumination it is always in the exact same position as the subject's forehead. The light intensity develops to a maximum well within 3 seconds and thereafter remains constant no matter how long the light is kept on. What is actually being measured is the heat of the light that passes through the vacuum tube. The thermocouple being in a vacuum is not affected by an external source of warmth.

We feel that our instrument has one advantage and that is the ability to regulate it in such a way that preliminary readings can be made and these readings can be checked from day to day. This check method insures us that the condition of the apparatus is always the same.

The advantage of this is seen in the following experiment on the same subject taking aspirin on different days. With the powerstat so set that the millivoltmeter gave a reading of 12 millivolts, the reading on three different days was as follows:

3/28/46—Initial pain threshold was.....12.2 m.v.
4/ 1/46— " " " " .....12.6 m.v.
4/ 2/46— " " " " .....12.6 m.v.

The rise in the pain threshold was respectively 21%, 23%, 23%.

When care is taken to have all conditions both in the subject and the environment constant, the threshold from day to day does not vary greatly. What seems interesting is that there is but little difference in the amount of heat necessary to produce the initial pain threshold in a given group of subjects although their reaction to the drug may vary.

For those who wish to calculate the calories from the readings on the millivolt scale of 20 the following formulæ are available. From this temperature the calories per square centimeter can be calculated for comparison with the Wolff, Hardy method.

Thermocouple temperature in degrees centigrade equals:

$$\frac{\text{Millivolt reading} \times 1100}{60} +$$

room temperature in degrees centigrade.

The intensity of the incident radiation as produced by lamp heat source:

$$I = cT^4$$
$$I = 1.36 \times 10^{-12} (T^4)$$

where

"I" is in cal./sec./cm.^{2}
"T" is in absolute temperature
"c" is equal to 1.36×10^{-12}

BIBLIOGRAPHY

1. Hardy, James D., Wolff, H. G., and Goodell, H. Studies on pain. A new method for measuring pain threshold. Observations on spatial summation of pain. J. Clin. Invest., 19: 649, July 1940.

FIG. 1.

A—Head board of apparatus.
B—Condenser system.
C—Electromagnetic shutter.
D—Cylinder, housing the 1000-watt lamp.
E—Electrically driven powerstat for light intensity control.
F—Sola constant voltage regulator.
H—"Spot-check" voltmeter.
M—Powerstat for speed control of (E) motors.
N—Contact switch for operation of instrument.
O—Electric interval timer.
P—Millivoltmeter for thermocouple.
R—Vacuum-enclosed thermocouple in wooden block.

ART IN THE HISTORY OF MEDICINE

THE SIXTEENTH CENTURY CURES FOR LUNACY

CLEMENTS C. FRY, M.D., New Haven, Conn.

The artists of the 16th and 17th centuries have depicted in figurative narratives the activities of the traveling quacks, especially those of the low countries.

The stone cutting specialist who pretended to remove the stone or stones from the body, and in case of insanity from the head, was the common theme of numerous artists, such as Jerome Bosch, Jan Steen, Franz Hals, Jr.

The etching "The Witch of Mallegem" by Pieter Breughel the elder (*c.* 1525-1569) allegorically presents the subject. The quack is seen cutting a stone from the victim's head, while other afflicted with stones await their turn. An assistant, with a lock on his lips, under the table passes stones to his employer or shows them to the crowd.

Although the seat of lunacy was said to be in the head, stone cutting did not necessarily cure the patient, and numerous other approaches to the patient's pocketbook were indulged in by the quack. The impressive and elaborate chemical laboratories were ideal set-ups for exploitation by the charlatan.

In the picture "Doctor Wurmbrandt, der im gantzen Land, überall bekandt" we see the forerunner of the therapeutic application of heat for the cure of insanity, as the cutting for the stone may be looked upon as the forerunner of lobotomy. This patient's head is stuck in an oven and through distillation the causes of the illness are allegorically represented by snakes, worms, insects and other objects. A medicine (wisdom) is given him by mouth and fools come from his bowels. The artist is Matthias Greuter (*c.* 1564?-1638).

The verses beneath the drawing are freely translated. Thus does Dr. Wurmbrandt address his patient:

"You sick men and women: If you wish to entrust yourselves to a doctor, then entrust yourselves to me. I am the best healer of the human race. Just show me your urine and I shall soon see what has happened to your body and brains to make you act so foolishly and to associate with fools. I am a master of these things; can make the giddy and mad intelligent; can recognize immediately from the face what disjoints a person mentally and can conjecture easily from one's manners what else might be wrong. If you have no rest because of worms, then hurry to me, Dr. Wurmbrandt: I shall cut away skillfully the worm from your worm-eaten brains. If you struggle and pick a quarrel with a mouse (in your imagination?), which no one can very well endure, then for a little money I will catch them for you; I have cats up my sleeve which are so full of cunning that no rat is safe. If you have too many rafters in your head (*i. e.,* If you are crazy) then you are a very great fool; if there is a spar missing in your head then you are very close to being an arrant fool and children might laugh at you. If you lose your senses, then fantastic notions, doves and other nonsense continually fly in and out of your head. Your mind then becomes its own house. See! I can name all that as vertigo and wild imaginings as when one is inflamed by wine or just as a coal fire burns, and as when you, having become quite drunk, do not know the east, south, west or north. Yes. When you are conscious of nothing—whether you are man or woman—then trust me to bring you back to your right mind. If you do not get the mastery of just one of your evil troubles (so that my medicine must depart without any healing power and without proper working); if you do not wish to understand and do not wish to recognize who you are and what foolishness is in you; and if you display yourself pompously and believe that more wit is in your nose than in twelve wise minds—Oh woe!—then all medicine is useless. If my medicine is to refresh you then you must have faith in it. Faith establishes all things. Without it all craft and relief is

trifling. But come! We will test it in my alchemical laboratory. There I have set up my *Brennhelm* (a dome used for distilling). Come. Present your head and do not be afraid. We will in a short while see the mist go up in full current with the thousand-fold contents of a fool's mind—contents which I noticed so well in you. Oho! They already come up. What distilling! What things fly out! What trash was stuck in your head! You confused simpleton! You have me producing more rubbish from your head than there is in almost a whole forest of monkeys. If I make you free of this illness then proclaim that I am a master."

The caricature "By Veele zit de kei In't Hooft om dat Men in de Wind Gelooft" is a copy of Carolin Allardts drawing "Comt Mannen en Vroviwen Alle Beyen laet and synden vande key" which is the outstanding work. Many methods by which the stones are removed from the body are depicted. Among them are, cutting from the head, flagellation, removal by pincers from the anus, purging or the natural removal through bowel movement, vomiting, removal through the urinary system, and the treatment through the use of tobacco and the use of the hot iron. The legends are allegorically expressed in each group.

A stipulation in the Oath of Hippocrates may properly be quoted in connection with these caricatures:

> I will not use the knife, not even, verily, on sufferers from stone, but I will give place to such as are craftsmen therein.

BIBLIOGRAPHY

F. H. Garrison's "History of Medicine."

Eugen Hollander's "Die Karikatur und die Satire in der Medizin."

Eugen Hollander's "Die Medizin in der kassischen Malerei."

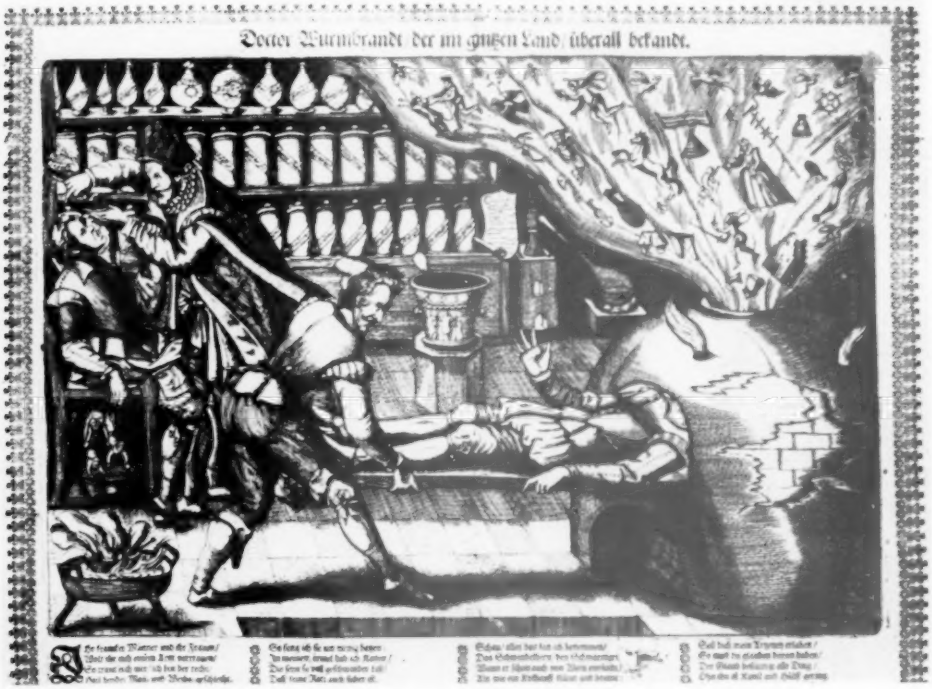
Henry Miege, "Pierres de Tet" et Pierres de Ventre in Nouvelle Iconographie de la Salpêtrière, Vol. 13.

Henry Meige, "Les Operations sur la Tête" in Nouvelle Iconographie de la Salpêtrière, Vol. 8, 1895.

Henry Meige, "L'Operation des Pierres de Tête" Aesculape No. 3, Mar. 1933.

M. J. Friedlander, "Nenes von Pieter Bruegel."

The Witch of Mallegem.



Dr. Wurmbrandt, der im Gantzen Land, überall bekandt.

By Veele zit de kei In't Hooft om dat Men in de Wind Gelooft.

A COMPARISON BETWEEN THE NEUROPSYCHIATRIC SCREENING ADJUNCT (NSA) AND THE CORNELL SELECTEE INDEX (FORM N) [1]

CAPTAIN HARRY C. LEAVITT, M.C., A.U.S.

WITH THE TECHNICAL ASSISTANCE OF TECH. SGT. HERBERT GRAHAM

The heavy economic and hospitalization burden which the government has borne since World War I as a result of neuropsychiatric casualties, has given marked impetus to many investigations, civilian and military, toward the development of methods whereby potential psychiatric casualties could be eliminated before military indoctrination.

Inasmuch as the induction stations proved the most practical places to screen out the more obvious psychopathological syndromes, increased attention was focused on development of tests applicable to examinations of large groups of men with very limited time available for individual examinations.

In order for any neuropsychiatric screening test to be of value in an induction station it is necessary that the test be rapidly administered, easily comprehended, quickly scored, and that the individual items in the test be easily scanned by the neuropsychiatrist. The test substance should indicate the presence of the commonest syndromes such as chronic anxiety states, neurasthenia, hypochondriasis, antisocial trends, and the more common psychosomatic illnesses as asthma, migraine, peptic ulcer, and vasomotor syndromes.

PURPOSE IN COMPARING TESTS

Pressure from circumstances arising in large scale neuropsychiatric examinations serves as a constant stimulus to examiners to evolve methods and to compare various tests which, besides serving best in saving energy and time, would be fairly reliable indices to psychopathology.

For a while we used short "home-made" questionnaires, consisting mostly of questions which denoted psychosomatic manifestations. These symptoms were given the utmost consideration because the two examining psychiatrists learned from intensive clinical experience in military neuropsychiatric hospital wards that the greatest number of patients presented symptoms and complaints predominantly psychosomatic in nature.

We quickly utilized the Cornell Selectee Index,[2] Form N, as a neuropsychiatric screening instrument following publication. It proved more valuable than anything we had used previously.

About ten months later the War Department issued a test known as the Neuropsychiatric Screening Adjunct (NSA). This aid also proved very helpful.

The tests were employed together for about one month. It was found that each possessed certain advantages, as well as disadvantages. One of the purposes of this paper is to discuss those factors which tend to make one test better than the other.

DESCRIPTION OF TESTS

Cornell Selectee Index, Form N.—As a result of numerous test procedure experiments on a variety of groups of subjects an index was devised based on the results of three tests which indicated reaction patterns such as neuroses and other manifestations suggestive of unstable personalities, including the subject's self-confidence, range of interests, decisiveness, and psychosexual aberrations.

Subsequent studies permitted the investigators to recommend a simplified and abbreviated application of the test.[3] It was found that the third form, Form N, of the Cornell Selectee Index, which we used exclusively in our examinations, would suffice for routine examinations. Forms one and two were to

[1] From the Neuropsychiatric Section, Armed Forces Induction Station, Seattle, Wash.

[2] Weider, A., Mittleman, B., Wechsler, D., and Wolff, H. G. The Cornell selectee index. J.A.M.A., 124, 224-228 (Jan. 22) 1944.

[3] Weider, et al.: The Cornell selectee index: Short form to be used at induction, at reception, and during hospitalization, pp. 6, privately printed.

be reserved for cases requiring more intensive study of personality structure.

Form N consists of 64 questions designed to denote certain psychopathology which was mentioned in the opening paragraphs of this paper. A certain number of the items consists of questions which were more important than the others. These are known as 'stop' or 'critical' questions because anyone exhibiting such symptoms should be 'stopped' for especial neuropsychiatric appraisal. An example of a 'stop' question would be: "Have you ever gotten into serious trouble or lost your job because of drinking?"

The directions to the group consist of short stereotyped instructions. They are to answer every question as quickly as possible, by encircling the appropriate 'yes' or 'no.'

Five minutes was the time needed to complete the test, as found by the investigators, and could be scored in less than one minute with the use of a key by anyone with a secondary school education or its equivalent.

The authors stated that Form N would detect approximately 85 percent of persons suffering from neuropsychiatric and psychosomatic disturbances when applied to literate individuals.

Neuropsychiatric Screening Adjunct (NSA).—By a War Department order there was effected in the fall of 1944 a routing application of the NSA for the purpose of rapidly 'screening' selective service registrants having indications of neuropsychiatric and psychosomatic tendencies. This test was also to be administered to illiterates. These individuals are examined verbally by a clerk, who, after checking appropriate responses, scores the test in the usual way.

The form consists of 23 questions. Most of these offer a choice of one of three answers. Several 'stop' or 'critical' items are also included, which have a similar significance as in Form N.

Statistical study conducted at our induction stations revealed that the NSA 'screened' approximately 85 percent of individuals presenting the more common psychopathological syndromes.

Correlation

A correlation investigation was undertaken to determine statistically whether the NSA and the Form N were instruments performing the same function.

An unselected group of 768 inductees were administered both tests. The two neuropsychiatrists interviewed the men in a customary procedure with the exception that the 'screening' forms were not seen. The diagnostic impression was entered as usual. However, preceding the impression was placed a letter ranging from A to D. These letters designated the examiner's evaluation of the relative stability of the individual's personality. A group scale of this type was used for statistical reasons.

The group ratings were interpreted as follows: Group A consisted of selectees whom the examiners considered as "normal" with practically no psychopathology elicited during the interview. Group B consisted of selectees whom the examiners considered as "normal," but who presented a borderline degree of psychopathology which was not considered sufficiently pronounced for disqualification. Group C consisted of selectees who were neuropsychiatrically disqualified, but who presented a borderline degree of stability which was not considered sufficiently pronounced for qualification. Group D consisted of selectees who were considered to be psychopathological without doubt.

TABLE I

Frequency Distribution

Psychiatric rating	Examinees	NSA Mean score	NSA Standard deviation	Form N M.Sc.	Form N S.D.
A	379	25.42	3.3	5.5	4.6
B	141	21.8	4.24	9.6	6.15
C	63	20.45	5.3	12.1	8.85
D	185	17.54	5.8	17.26	9.75

Owing to the fact that there were too few points on one axis of the correlation chart to permit satisfactory correlation of either test with the neuropsychiatric rating, a frequency distribution of the scores was made. The mean score and the standard deviation were established permitting determination of the difference between means (Table I).

The M test revealed that the difference between Groups A and B was significant, as was the difference between Groups C and D. However, the difference between Groups B and C was borderline, which

would not permit a categorical statement as to whether or not the apparent difference would hold true if the entire population were tested. The absence of significance between Groups B and C was probably due to an insufficient number of cases entered in these categories.

A correlation set up between the NSA and Form N revealed a value of minus .81.[4]

Comment

On the basis of experience gained from having neuropsychiatrically examined for military service approximately 70,000 individuals, including selective service registrants, WAC applicants, and Air Corps volunteers, I believe that investigators should place more emphasis on the development of individual test items.

Phrasing of questions and simplicity in terms determine to a marked extent the usefulness of a neuropsychiatric test used in an induction station. It is relatively easy to determine which symptoms would denote psychopathology, but long experience in actual examining is necessary to learn the most advantageous way to phrase questions, and to learn which words in individual questions are beyond the vocabulary of significant numbers of examinees. For example, a question in Form N reads: "were you ever a patient at a mental hospital?" Hardly a day passed that this question was not answered in the affirmative in more than one instance. Invariably, the selectee misinterpreted 'mental' to mean 'medical.' A similar question was presented in the NSA but in the following form: "Were you ever a patient in a mental hospital (because of your nerves)?" The superiority of this phrasing was shown by the fact that since the NSA has been used in our induction station I have not seen a single affirmative reply.

In general, the wording of questions in the NSA was more simple and explicit than in Form N. There were found only three questions in the latter which were considered superior in presentation. The exceptions were: (a) (Form N) "Have you fainted more than twice in your life?"; (NSA) "Have you ever had any fainting spells?" As a rule, individuals who fainted would not refer to the acts as 'spells'. They tend to associate the term 'spells' with unprovoked abnormal behavior of one sort or another. In most instances the examinees felt that they could explain why they fainted, giving reasons such as "overheated" room, cut finger, witnessing accident, and so forth. (b) (Form N) "Are you considered a nervous person?"; (NSA) "Are you ever bothered by nervousness?". Many instances have been encountered where the man does not think he is nervous but will admit that his wife, parents, or friends do think so. (c) (Form N) "Have you ever had a fit or convulsion?"; (NSA) "Have you ever had fits or convulsions since you were ten years old?". Obviously, a fit or convulsion at the age of nine, eight, or any time from early infancy, would be as significant as at any other pre-adolescent age period.

Important defects were found in both tests for similar items. An item as "Do you take dope?" (NSA) or "Do you use dope?" (Form N) would be better for obvious reasons if it were to read "Have you ever used dope?" Another example whereby a slight change in phrasing was found to elicit many more accurate replies is as follows: "Have you ever gotten into serious trouble or lost your job because of drinking?" (identical wording in both tests), modified by the examiner to, "Have you ever gotten into trouble (note: omit the word 'serious') or lost your job or been arrested because of drinking?"

The Cornell Index (Form N) contains several questions not present in the NSA which are of considerable importance for a military neuropsychiatric evaluation. These questions pertain to bed-wetting between the ages of 8 to 14 years, presence of unusual fears, sleep-walking, and to whether the subject has been arrested more than three times. Incidentally, this question would serve more advantageously if it inquired whether he had *ever* been arrested.

Although Form N was found to screen

[4] A minus value was obtained owing to the difference in scoring methods applied to the NSA and Form N tests. The former was designed in such a manner that the degree of psychopathology would be manifested in direct proportion to diminishing score values. The latter test is scored in an opposite manner.

from 80 to 90 percent of individuals believed to be militarily unfit, as mentioned previously, and it was determined in our induction station that the NSA screened to the approximate extent of 85 percent, no man should be considered acceptable for induction merely on the basis of his score value. A number of psychopathological syndromes are not effectively detected by the tests. The category of psychopathic personality is inadequately screened owing to the very limited number of items designed for this purpose in the tests. The five questions in Form N and the two or three in the NSA which suggest alcoholic trends and arrests are insufficient to detect the large group of sub-types of psychopathic personalities. Anxiety hysteria will be satisfactorily manifested, but conversion hysteria will not. Obsessional states, pre-psychotic and psychotic personalities cannot be expected to reveal sufficient and reliable symptoms in the forms.

One of the prime necessities for a personal interview is to rule out malingering. "Positive" malingering in the tests, whereby the subject attempts to convey an impression of incapacitation, is rare, but "negative" malingering, whereby the opposite attempt is made, is very common. In the latter case the score value may be well within the "acceptable" range, but his general appearance often belies the stability of personality which the score suggests. As a rule it requires very little pressure on the selectee during the interview to elicit the symptoms which experience has taught the examiner to expect in such individuals.

In addition, a personal neuropsychiatric examination must be made in all cases in order to rule out the presence of organic neurological disease.

From the point of view of practicability, the neuropsychiatrist is less interested in test score values than he is in the way certain questions are answered. Regardless of score achieved, the individual items must be perused. The frequency with which a solitary significant question would be answered in the affirmative (not necessarily a 'stop' question) and be accompanied by a final score falling well within "passing" limits soon taught us the need for a more careful examination of the answered questions. For example, in Form N, a man may answer in the affirmative to the question pertaining to bed-wetting between the ages of eight to fourteen. This may have been his only noteworthy response in the test. A history of enuresis during that particular age period is not in itself disqualifying, but if we notice during the interview that he had also indulged in severe habitual nail-biting, the evidence becomes greater that here we have a man with an unstable personality. Probing further we usually find additional evidence, not uncovered by the tests, such as, perhaps, psychosexual maladjustment, marked asocial trends, and so forth. The ramifications may become numerous.

The time factor precludes detailed interrogation regarding each question answered in the affirmative. We can only pick out items which we consider most important. A test that is confined wholly to important questions such as the NSA is of more value to the induction station examiner than a test such as Form N which consists of approximately three times as many questions, about two-thirds of them of little use in the neuropsychiatric evaluation.

An additional advantage present in the NSA is the multiplicity of choice in replies to questions. It has been found during our examinations that, as a rule, when a man underlines 'seldom' in reply to a question, detailed questioning fails to result in significant evidence, and therefore we now tend to disregard a question answered in that manner. However, in Form N, where questions are answered by encircling a simple 'yes' or 'no' the examiner spends much time on certain questions answered by 'yes' only to learn that the man really meant 'seldom.'

Furthermore, the administration section of an induction station is vitally concerned with time allotted to the various tests and questionnaires to be completed by selectees. The NSA form is very satisfactory from that point of view. It required six minutes, as an average, to answer the 23 questions, and twenty seconds for scoring each test, no apparatus being required for this purpose.

Although the authors of Form N found that it requires approximately five minutes for completion of their test, as mentioned previously, and could be scored in less than

one minute with the aid of a key, our studies resulted in the conclusion that completion of Form N required fifteen minutes.

Conclusion and Summary

1. A statistical correlation study made in an induction station between the Neuropsychiatric Screening Adjunct (NSA) and the Cornell Selectee Index, Form N, revealed that both tests performed the same function as shown by a correlation of minus .81.

2. Intensive neuropsychiatric examining experience in an induction station has taught the need for greater attention to be given to the manner in which individual test items are answered, and a minimum amount of consideration given to the test score value.

3. We believe the NSA test superior to Form N in the following ways: (a) Less time is required for administration and scoring; (b) phrasing of individual questions is better in that wording is more simple and to the point; (c) a minimum of non-essential questions are presented. This quality permits a perusal of the items by the examiner with a minimum of time and visual sorting of the significant responses; (d) the multiplicity of choice in type of reply allowed the individual was of definite aid in the economy of the neuropsychiatrist's time.

4. Certain advantageous elements were present in Form N which were lacking in the NSA; namely, Form N contained certain very important questions absent in the other test, and several items were better worded and presented than similar items in the NSA.

5. Neither the NSA nor Form N was designed to effectively detect psychopathology such as psychopathic personalities, conversion hysteria trends, obsessional states, and the pre-psychotic and psychotic personalities.

6. Any type of neuropsychiatric screening test must only serve as a supplement to an examiner's judgment. The utilization of a test score by a clerk as the only criterion to determine whether an individual is neuropsychiatrically acceptable, without a routine neuropsychiatric interview, is not recommended. Of necessity, a neuropsychiatric interview must include a neurological examination.

PERSONALITY STUDIES IN MENOPAUSAL WOMEN[1]

KARL STERN, M.D., AND MIGUEL PRADOS, M.D., MONTREAL, QUE.

INTRODUCTION

The present study was concerned with the following questions: (1) Is there any characteristic type of psychological reaction associated with the menopause proper? (2) If so, in what way does it differ from other disturbances occurring during the involutional period? (3) What is the relationship between the physical symptoms and signs of the menopause and its emotional concomitants? (4) Are there any specific factors in the patient's personality and in her history which predispose her towards such emotional reactions?

REVIEW OF LITERATURE

The literature on psychological concomitants of the menopause can be traced back at least one century. There are observations by gynæcologists as well as by psychiatrists. Many of these are random remarks scattered in textbooks, or in papers dealing with different topics. However, there are papers by gynæcologists, particularly those dealing with the artificial menopause, in which special chapters are devoted to psychological symptoms and complications There are also studies by psychiatrists, particularly devoted to the climacteric period. These papers present a medley of the most varied observations, from personality changes intimately associated with the loss of the reproductive function to acute manic psychoses obviously precipitated by the menopause. Little attempt is made to go into the dynamics of these phenomena.

The earliest reference in the medical literature to a menopausal disorder is the report by Willis (1684) of a woman of 50 who, six months after the menopause, developed "convulsions of the stomach." Brière de Boismont (1842) remarked that the menopause is frequently followed by melancholia. Hegar (1878) stated that during and after the menopause diseases of the nervous system come next in frequency to those of the sexual organs. As the symptoms most frequently encountered he describes hyperasthesia, prickling and burning sensation in the skin of the extremities, "pseudo-narcotism," uncertain gait, muscular weakness, insomnia, migraine and hallucinations. All this is encountered in spontaneous as well as artificial menopause. Börner (1886) in one of the earliest monographs on the subject found that personality changes are frequently the first sign of the menopause and indicate its approach. He, too, stresses the frequency of depressive reactions but cites examples in which depressive women during this time developed a gay temperament. In other cases he saw irritability and quick temper as a menopausal symptom. Skene (1880) found that, at least in the poorer classes, "climacteric insanity" is frequently associated with malnutrition. Soon after ovariectomy had been more generally introduced interest became focussed on the changes following the artificial menopause. According to Tissier (1885) women never lapsed as deeply into melancholia following castration as men. Glaevecke (1889) made a very careful study of 38 women after castration. In one-third of the cases he found no emotional changes at all, in one-third depression was marked, and the remaining third showed either "increased happiness" or fluctuating states, or morbid irritability and excitability. Two of his depressed cases had to be hospitalized; one of them presented, according to the author's description, a picture of agitated depression. He, like Hegar, comes to the conclusion that "castration produces an artificial climacterium which resembles the spontaneous one in every feature," the only difference being that "by castration women enter the climacterium prematurely." It is noteworthy that even at that time Werth

[1] Read at the 102d annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

From the Department of Psychiatry, McGill University, and the Allan Memorial Institute of Psychiatry, Montreal.

(1888) observed that "melancholic" reactions in women occur as a sequela to any operation on the reproductive organs and even to laparotomies in general.

Many of the early authors paid particular attention to the question of change of libido during the artificial as well as during the natural menopause. The general trend there is to emphasize the persistence of libido after the natural menopause (Kisch, 1874) and the impact which castration has on the libidinal function. However, these latter observations are usually modified. Thus, for instance, it is emphasized that the patients after castration still remain prototypes of womanly features, and that, although sexual libido diminishes, love for husband and family is unaltered (Peaslee, 1873).

The earliest detailed study of climacteric psychoses in women is contained in a remarkable paper by Merson (1876). He found that in a considerable percentage of a group of new admissions to a mental hospital there existed a time relationship with the menopause. In 69 of these the psychosis had manifested itself before, and in 147 cases after complete cessation of menstruation. Merson did not consider the menopause as an exclusive "cause" of these breakdowns. As additional motivating causes he mentions "bereavement," "cruelty of husband," "financial trouble," and such precipitating somatic factors as profuse uterine hæmorrhage. Among the cases in which he was able to exclude organic brain disease with certainty he observed several distinct groups; there was a simple form of depression with nervous irritability and oversensitiveness, secondly a form of depression with "emotional and intellectual disturbance," also hallucinations and delusions with depressive content, and finally one form characterized by delusions of suspicion and persecution, hallucinations and outbursts of excitement.

From these examples it can readily be seen that, perhaps with the exception of Merson's paper just quoted, we have to deal with general observations and statistical cross sections. It was only in this century that distinct types of reactions emerged out of this polymorphous array. The only well-defined type is that of involutional melancholia. It is beyond the scope of this paper to describe the gradual evolution of this clinical concept from the earliest attempts (Lipschitz, 1906; Dreyfuss, 1907) to a clear delineation of the picture (Palmer and Sherman, 1938; Malamud, Sands and Malamud, 1941). One fact, however, became increasingly apparent; involutional melancholia is not directly associated with the gonadal changes of the climacterium. This is suggested by the fact that the disturbance occurs at any time of the involutional period, sometimes separated from the climacterium proper by two decades. Moreover, estrogen studies showed that in women the occurrence of involutional melancholia was not correlated with the extinction of the ovarian function (Carlson, 1937). The reports on the effect of estrogenic therapy in these involutional psychoses were extremely contradictory (Werner *et al.*, 1936; Schube *et al.*, 1937; Little and Cameron, 1937; Pollack, 1939).

Since it is established that the "involutional" syndrome is not immediately associated with the climacterium, we have to ask ourselves what, then, is "climacteric" in the strict sense? Are there personality changes, emotional disturbances and problems immediately connected with the gonadal crisis, and in what way do they differ from what is commonly designated as "involutional"? This question is not only of academic interest; there are cases of profound, seemingly endogenous depressions during the involutional period, which, to our surprise, turn out to be refractory to electric shock treatment, and others which, against all our expectations, react well to estrogenic therapy and to simple guidance. Therefore, it appeared necessary to study the possible dynamic factors on a systematic comparative basis.

There are in the more recent literature interesting observations on menopausal disturbances. Many of these observations are presented as general remarks; they are based on the physician's general experiences and are usually not supported by case material, or by comparative analysis, or by the results of uniform methods. Stelzner (1926), in a reply to statements made by the famous gynæcologist Sellheim, drew attention to the sources of error underlying

all such statements. According to her, the gynæcologist sees only a selection of cases; namely, either the overworked housewife, sexually "exploited," fatigued by housework, by undesired children and by abortions, and overprotected, mimosa-like women of the upper classes. This is the origin of the tale of the "change of life." Curiosity, suggestion, particularly the influence of descriptions supplied by other women, play their part. Farrar and Franks (1931), on the basis of an actual analysis of case material, came to similar conclusions. These authors in a careful survey found that about one-third of the depressions associated with that life period are reactive depressions; about one-third are cases of involutional melancholia in the strict sense; and about one-third belong to the general group of endogenous affective disorders. Hoskins (1944) regards over-responsiveness of the sympathetic nervous system as the central feature of the menopausal syndrome. This theory is based on the early experimental findings of Hoskins and Wheelon (1914). Hoskins observes that the chief clinical feature is anxiety, and that during the menopause there appear various threats to the ego which are the source of anxiety. These threats are: involution of the reproductive organs which present a token of power (castration anxiety); increased fatigability, loss of friends; economic insecurity.

Shorr (1941), in discussing the physical and emotional disturbances of menopausal women, comes to the conclusion that the emotional complications are of a psychoneurotic nature and are almost always exacerbations of similar previous disorders in the patient's life.

The most recent treatise on the subject is that by Helene Deutsch (1945). According to her, there is frequently during the preclimacterium a return of creative drives. Some women desire to become pregnant once more; there is an apprehensive feeling about the "closing of the gates." The author makes an interesting parallel between puberty and preclimacterium, both characterized by the expectation, as it were, of a profound biological transition. Women become more suggestible and more given to phantasies, just as in puberty. "The frequent depressions during the climacterium contain justified grief in the face of a declining world. Depressed moods connected with feelings of inferiority are also frequent in adolescents." Sublimation is very important to forestall any breakdowns. Regardless of her primarily psychological approach to the subject, she suggests that "in the future many difficulties of the climacterium may be avoided through the influencing of the endocrine apparatus."

Method

The patients were seen in one or more interviews. In some cases relatives were also interviewed. A psychiatric and social history was taken, and an appraisal was made of the patient's present psychological state. In all but 5 cases a Rorschach test was administered. The data thus obtained were supplemented from the medical record and by the social service department. Follow-up studies were made whenever possible.

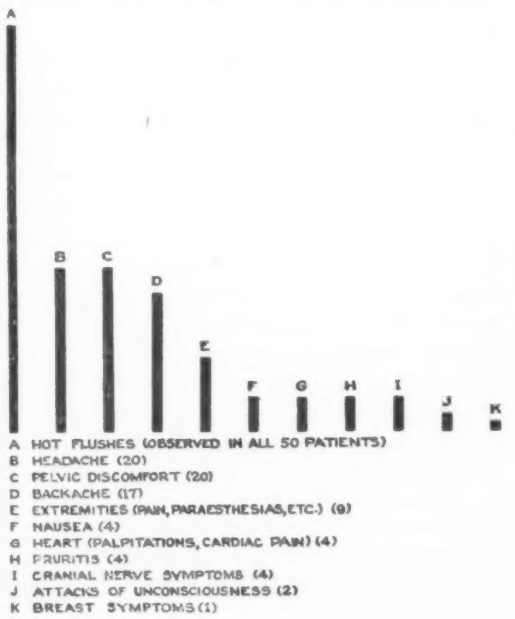
Subjects

Fifty patients who attended the medical or gynæcological outdoor departments and in whom the diagnosis of menopausal syndrome had been made on the basis of physical findings, were examined. "Menopause" in the literal sense was present in 40 cases; in the 10 remaining there was no cessation of menses but the diagnosis had been made on the basis of clinical symptoms, gynæcological examination and laboratory data. Of the 40 strictly menopausal ones *i.e.*, those in whom menstruation had ceased, 23 had undergone an artificial menopause, 22 by surgical procedure, one by radium. Patients who had primarily been sent to a psychiatrist were excluded from this study. However, in 23 cases emotional symptoms appeared so marked that a psychiatrist was consulted at one time or another during their period of attendance to those outdoor departments. The remaining 27 would not have been seen by a psychiatrist had it not been for this study. The range in ages was from 33 to 58 years. Only 19 were Canadian, 11 were immigrants from the British Isles, and the remainder originated from the European continent. All patients were of a poor or marginal economic class.

Results

By the time they were seen most women had attended one of the outdoors over a considerable period for treatment of the so-called "menopausal syndrome." Symptoms diagnosed as menopausal had been there for several years in most cases. In those women who in their own opinion or in the opinion of their physician needed psychiatric help the average duration, by the time they were seen by us, was 5.15 years; among the remaining ones it was 3.34 years.

Physical symptoms.—Graph 1 shows the frequency of physical symptoms among the entire group. We see that hot flushes were present in every case. Next in frequency came headache, abdominal discomfort, backache and painful sensations in the limbs. In 3 of the latter cases the diagnosis of arthritis had been made. The headache is always felt in the middle parietal or occipital region, and occurs most frequently in the morning. The backache occurs in the evening, or, in some cases, is continuous. The abdominal discomfort is usually referred to the pelvic area. Most frequently it is continuous. It is rarely described merely as pain. The patient characteristically uses somewhat complex symbols: "It is like a heavy pressure," "I have a frightening feeling down here," "It starts here and goes higher and higher," "I feel all swollen up," and "It is a feeling as if somebody had kicked me."



Graph 1.—Pattern of physical complaints.

The paraesthesias consisted either of those of the peripheral nerves (short attacks of pins and needles in the distal parts of the extremities) or of the special senses (bitter taste in mouth, sounds in the ears). It is interesting to note that complaints referable to the heart (pain in the cardiac area, palpitations) occurred in only 4 cases (8%).

Emotional pattern.—Forty-one patients (82%) complained of being depressed. It is impossible to give a quantitative index of the depressive reaction but suffice it to say that it varied in intensity from a vague complaint of feeling "blue" to serious degrees with complete inability to work, severe insomnia and a sense of utter hopelessness. A rough index of the severity can be obtained from the fact that in 23 cases the mood disturbances were the predominating symptoms, so that at one time or another the gynæcologist or internist called in the psychiatrist before the present study was made a routine procedure, or irrespective of it. The depression had several characteristic features. Firstly, it was frequently poor in content. "I worry about nothing." "I could cry day and night," "I cry about nothing," "I am all nerves." Where there was a content present it consisted of understandable causes from the patient's past or present situation, causes of which the patient was conscious. A woman with a bad marital background said: "I have little interest in anything. Life is flat. I keep on thinking; I am worried, worried, worried." Thus, the factor which, in the opinion of relatives, social workers and examiners, predisposed the patient towards her depressive reaction, at the same time formed the main conscious pre-occupation. Table 1 gives a survey of these causes.

Secondly, in all cases but one, guilt feelings or tendencies towards self-accusation were completely absent. Even in the particular case ideas of guilt were not of central importance, came out only at a certain point of the history, and lacked the incongruity which is often so characteristic of such ideas in functional affective disturbances. Thus

woman had performed an artificial abortion after having had one child. "After I had done it I could not forgive myself, it was like murder." She described vividly the embryo ("It was like a chick, a bird") and she said that her maternal feelings were very much upset.

Something resembling ideas of reference occurred only in one case. This woman said that for some time during her condition she did not want to go out because she thought that people were talking about her. In this particular case there were marked language difficulties so that this remark could not be evaluated any further.

Thirdly, the flow of thought was as a whole not disturbed. Even the severely depressed patients were not agitated; only in one case was there a suggestion of retardation. The depression was in most cases continuous. Five patients described it in terms of short "blue spells" interspersed with normal periods. In some cases this fluctuation was also apparent during the interview when the patient cried explosively.

TABLE 1

"CAUSES" OF DEPRESSION IN THE SO-CALLED DISTURBED GROUP

Cause	No of patients
Marital maladjustment	17
Financial backslide	1
Loss of children	2
No "obvious cause"	3

Anxiety did not occur as a spontaneous complaint. However, 16 patients complained of a feeling of psychic tension expressed in characteristic symbols: "I have an inner trembling," "I have a frightening feeling here (pelvic area)."

The depression was combined with irritability, particularly with oversensitiveness to "people and noises." In 6 cases this irritability was so marked that it formed the predominating spontaneous complaint. It was characteristically combined with the experience of inner tension mentioned above.

Examples.—E. L., age 50. "I am oversensitive to noise. It is not so much human voices but noises such as the closing of doors, the steps of neighbours, etc. They do not necessarily have to be loud noises but they seem to make me feel tense.

Mrs. R. A. H., age 47. "I get into a peculiar tension. People take very easily to me and tell me about their particular problems. And when they do so, particularly in the office, after they go on talking for a certain while I have to hold on to the table because I feel like screaming."

Heredity.—Positive hereditary history was present in 6 cases. There was a history of heredity in 2 out of 23 cases with outspoken depression.

"Nervous child."—Nine patients described themselves as "nervous children," giving such criteria as enuresis (2), undue fears, temper tantrums and nail biting. Four belonged to the group with marked depression.

Childhood milieu.—Fifteen patients described their childhood as unhappy. Nine of these were patients with marked depression (43% of this group).

"Causes" of depressive reaction.—The following is a list of chief causes contributing to the patients depressive reaction. These "causes" are listed according to whatever physicians, social workers, relatives and frequently the patient herself, regarded as the main precipitating factor. It seems characteristic of the social and constitutional group examined that many of these "causes" are very crude, obvious and understandable.

1. Husband alcoholic, cruel; separation.
2. Husband cruel; separation.
3. Alcoholism of husband, cruelty.
4. Alcoholism of husband, early impotence.
5. Husband impotent since beginning of marriage 30 years ago.
6. Bigamy with fear of discovery; both husbands died in mental hospitals.
7. Husband alcoholic and gambler; no sex relations for several years.
8. Lost two out of three children of school age.
9. Simple adult maladjustment ("bad stepmother" situation).
10. Marital maladjustment.
11. Economic and social backslide.
12. Husband impotent for 19 years (after three years' marriage).
13. Marital maladjustment.
14. Marital maladjustment with cruelty.
15. Husband's alcoholism; cruelty; separation.
16. Husband's alcoholism; cruelty; separation.
17. Simple adult maladjustment.
18. One son died, other severely wounded on D-Day.
19. Marital maladjustment.
20. Marital maladjustment.
21. Husband alcoholic, cruelty; separation.
22. Marital maladjustment.
23. Simple adult maladjustment.

Artificial menopause and emotional disturbance.—The incidence of artificial menopause among our patients is indicated by Table 2. In 11 out of these 14 cases there existed severe marital maladjustment before the artificial menopause was carried out.

Relation between emotional pattern and physical symptoms.—

(a) Vasomotor symptoms. The intensity of hot flushes in the untreated patient was graded according to the general experience of the endocrinological outpatient department into three groups: "mild" equals less than one hot flush within 24 hours, "moderate" equals up to three hot flushes within 24 hours, "severe" equals four or more hot flushes within 24 hours. As has been pointed out above, the patients had been grouped, according to features quoted above, into those suffering from menopausal depression in the strict sense and those in whom the emotional concomitants were less predominating. When tabulating our patients in this way it became obvious that no correlation existed between the intensity of the vasomotor symptoms and that of the emotional disturbances. In fact, there seemed almost an inverted relationship. (See Graph 2.)

TABLE 2

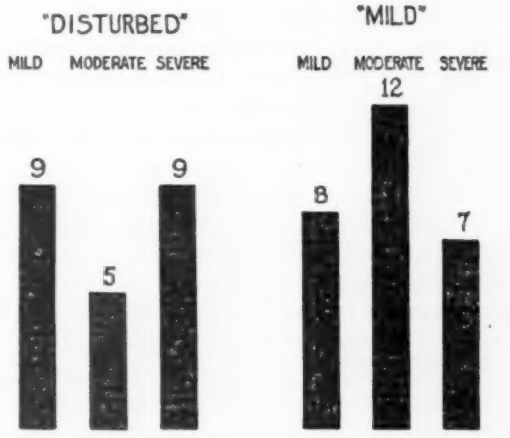
	Disturbed	Mild
Total	23	27
Artificial menopause	14 (61%)	9 (33%)

(b) Headache and lower back pain. There was no correlation between the incidence of headaches and lower back pain on one hand and the depressive reaction on the other.

(c) Pelvic discomfort. The relation between pelvic discomfort of any type and emotional disturbance was rather marked; 13 of the "disturbed" patients (56%) and 7 of the "mild" cases (26%) complained of lower abdominal pain. (From a statistical analysis it is found that a difference as large as this between the groups could occur by chance in 4 cases out of 100). This was the more remarkable since there was no correlation whatsoever between the incidence of operations and the lower abdominal discomfort.

Arterial hypertension.—Eight patients suffered from arterial hypertension; of these 4 belonged to the "disturbed," 4 to the "mild" group.

Relation between emotional reaction and estrogenic level.—The estrogenic deficiency was gauged by vaginal smears. Thus far this has been carried out in only 13 patients, and in view of the smallness of the group no definite conclusions can be drawn. From the few cases so far seen, however, at least at the time the patients were examined psychiatrically, no direct correlation between the degree of estrogenic deficiency and the emotional reaction is apparent. If, as some authors do, one regards the intensity of hot flushes as an indicator of estrogenic deficiency, this impression is reinforced by the data quoted above.



GRAPH 2.—Intensity of vasomotor symptoms (hot flushes) in relation to the emotional disturbances. (Explanation see text.)

TABLE 3

	Disturbed	Mild	Total
Normal	4	13	17
Frigidity for the greater part of married life	4	2	6
Frigidity and dyspareunia	0	2	2
Originally frigid, now normal	2	1	3
Originally normal, now frigid	7	6	13
Complaint of lack of satisfaction	3	0	3
No data	3	3	6

Sexual adjustment.—Data were obtained in 44 cases. They can best be evaluated from Table 3.

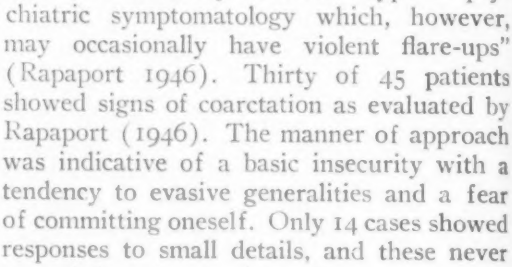
Previous breakdowns.—There was a history of previous breakdowns in 3 cases. One woman of 55 had suffered from a reactive depression at the age of 38, following the death of a son. One (age 54) had at the age of 33 a history of "nervous prostration" lasting six months. This was a reaction to her sister's moving to Vancouver (patient described a "very bad stepmother situation"). One patient (age 45) had at the age of 34 a "nervous breakdown with insomnia, due to overwork" ("in this case there was a very bad marital setting which had led to separation when she was 23; at the time of the nervous breakdown she was living in common law marriage with a man who is now her husband). At that time she spent 2 months in a general hospital.

TABLE 4

Trait	Total 50	Disturbed 23	Mild 27
Under active	0	0	0
Seclusive	3	2	1
Anxious	5	2	3
Very religious	1	1	0
Shiftless	0	0	0
Autistic	0	0	0
Pedantic	0	0	0
Prudish	5	1	4
Aggressive	6	3	3
Tolerant	46	23	23
Stubborn	4	2	2
Sociable	33	17	16
Timid	12	4	8
Pleasant	48	24	24
Hypochondriacal	2	1	1
Sensitive	9	6	3

Premorbid personality.—In view of the fact that one of the purposes of the present investigation was to delineate as clearly as possible the emotional concomitants of the menopause from other breakdowns characteristic of the involutional period, we purposely adopted the traits as formulated by previous investigators, particularly Malamud *et al.* (1941) and Titley (1936), only slightly modified.

Rorschach results.—The Rorschach findings will be discussed in full detail in a separate study. Graph 3 shows a compound psychogram of all the patients. Characteristic of this psychogram is the general impoverishment. The average total number of responses is 14. Apart from this there are two features quite marked, i.e., "coarctation" and a characteristic manner of approach. Coarctation is indicative of an "inhibitory, inert and relatively colourless type of psychiatric symptomatology which, however, may occasionally have violent flare-ups" (Rapaport 1946). Thirty of 45 patients showed signs of coarctation as evaluated by Rapaport (1946). The manner of approach was indicative of a basic insecurity with a tendency to evasive generalities and a fear of committing oneself. Only 14 cases showed responses to small details, and these never exceeded 4 in number. In 25 cases the emphasis was on W (W>D).



GRAPH 3.—Compound picture of psychograms of 45 cases.

The form percentage was more than 50 in 22 of 45 cases.

Thirty-three out of 45 cases showed 5 or more of the so-called "neurotic" signs of Miale and Harrower (1940).

In the evaluation of these features one has to be careful because the patients all belonged to a definite social group. However, the combination of high form percentage, coarctation and the high incidence of the so-called "neurotic" signs are consistent with the assumption of a reactive depression on the basis of pre-existing maladjustment.

DISCUSSION

The clinical picture encountered in our cases is surprisingly uniform. The overt psychiatric disturbance is one of a reactive depression which has its roots in a maladjustment usually preceding the menopause.

It is obvious from the data given above that the majority of women coming for more than one medical or gynæcological consultation on account of the "menopausal" syndrome show signs of such maladjustment. The line which was drawn between "disturbed" and "mild" cases had to be somewhat arbitrary. What cannot be shown by a merely quantitative analysis is the fact that the cases with severe depressive reaction presented only an exaggeration, in degree, of what was present in most patients.

From the pattern of the emotional disturbance the difference is quite apparent between this reaction and what is commonly designated as involutional melancholia. We saw that a tendency to self-accusation or to paranoid trends was practically absent in these cases, and that the stream of mental activity was unchanged. It is remarkable that Farrar and Franks (1931) found among psychoses associated with the menopause that in about one-third of the cases the picture was one of reactive depression, "reactions to outside causes in which the mental state might be regarded as appropriate to the situation except for its morbid exaggeration." It is not apparent from that paper how far these depressions differ in time relation and somatic symptomatology from the other groups discussed but it has been emphasized that involutional psychoses proper "frequently develop long after or even before the onset of the endocrine changes and seem to be much more closely related to other factors in life of the patient" (Malamud *et al.*, 1941), and the precipitation factors are commonly of a sudden, catastrophic nature.

It has been shown that for an understanding of the dynamics of involutional breakdowns the premorbid personality traits are significant (Titley, 1936; Palmer and Sherman, 1938; Malamud *et al.*, 1941). The last-mentioned authors describe certain constellations of traits which were frequent among the patients studied: "(a) the hard-driving, aggressive, conscientious and stubborn, (b) the seclusive, autistic, under active and prudish, (c) the sensitive, timid and hypochondriacal." These constellations are not at all applicable to the type of patient seen in this study. The majority of patients were women of considerable emotional warmth with whom rapport was immediately established and who seemed glad to be able to "open up." Moreover, there was evidence, in their life histories, of pliability and a readiness for practical compromise.

"Menopausal depression," therefore, is a characteristic disturbance, different from other breakdowns occurring during the climacteric period. It corresponds to what Farrar and Franks (1931) described as "reactive depressions" among their patients and probably to the "simple form" of disturbances which Merson (1876) had distinguished much earlier. What then, apart from the time relation, makes these reactions specifically "menopausal"?

We have seen that the causes for the patient's emotional reaction were chiefly associated with marriage and reproduction. Furthermore, we saw that there was apparently no parallel between the intensity of emotional disturbance on one hand, and the degree of hot flushes and estrogenic deficiency on the other. In going over the list of symptoms there seemed, however, a parallel between the intensity of emotional disturbance and subjective complaints referable to the pelvic area. At first sight these facts suggest that the association between emotional background and menopausal symptoms comes close to being on an ideational and symbolic rather than physiological level. However, a glance through our case material shows that this is not the whole explanation. Our observations on this point have to be taken only as exploratory, and have yet to be substantiated by control material. Nevertheless, the following case examples illustrate the nature of the disturbing factor on one hand, and the symptom and sign on the other, and the time relation between the two.

H. F., age 42. Irregularity of menses and moderate hot flushes for 6 months.

A woman of dark complexion, middle height, pyknic body build. She has a sad expression on her face, and when depressing facts are mentioned, she stops talking and her eyes fill with tears. However, during the latter part of the interview she also responds to an occasional joke with a smile.

Apart from the signs mentioned above she describes her complaints with almost endless details. At various occasions when the examiner looks up from his notes she interrupts herself, saying,

"This is not all," and carries on with a minute description of her aches and pains. She suffers from intense pelvic discomfort, backache and headache; frequently she feels cold. "I cannot go on with my duties when I go shopping and come home with parcels. I cannot go on and I have to lie down."

She describes her childhood history and her marriage as happy, but dwells at length on the history of her three children. Two years after marriage they had a girl who, however, died at the age of 4 of meningitis. Six years after the birth of that girl a boy was born, now 10 years old, and seems to be, from her description, just a normal child. Three years after this she had another girl who was quite strong and healthy at first but her "bile was blocked." She had to be operated at the age of two months and died. When asked how she reacted to the children's deaths at the time she says that she felt little. "Of course I cried." "Now I am sick and I don't want to remember." When asked whether, when awake, she thinks of the past more than of the future, she says, "I think more of my body because I have so much pain." The following remark seems to be very characteristic. She and her husband sleep in the same room with their boy of ten and with reference to ordinary colds which the boy has, she says, "The moment he coughs I get pains down here,—it is not that I get frightened but I get pains."

This case is characteristic of conversion symptoms with a rather primitive obvious significance.

M. B., age 54. Unmarried schoolteacher.

Artificial menopause by radium 10 years ago. Hot flushes day and night. Her "legs give way"; overwhelming fatigue and a feeling of listlessness and despondency. Severe pains in arms and legs ever since her menstruation stopped.

Patient describes her mother as "very pretty," "a lovely figure," "beautiful." She died at the age of 33 during her pregnancy, when the patient was only 4 years old. There were 2 daughters out of this marriage. Two years later, when the patient was 6, the father married again. There is an endless story of her "very jealous" stepmother.

The following points from the history are noteworthy. At the age of 17, after the first "showdown" with the stepmother, the patient had loss of weight and amenorrhoea for one year, but no emotional concomitants which she can remember now. When she was 33 her only sister (all the others were stepbrothers or stepsisters to whom she was less emotionally attached) moved to Vancouver; following this the patient developed severe pains in all her limbs which were regarded at the time as a sign of "nervous collapse." She was hospitalized and nothing organic could be found. These pains were of the same type as those she developed later during her menopause. When she was 44 her father died. While he was dying there were very dramatic scenes with the stepmother. During one of these she developed suddenly a severe metrorrhagia. She remembers that she had to receive ergot to be able to attend the father's funeral. Two months after the father's death she had another severe metrorrhagia which prompted her physician to produce artificial menopause by radium.

The time relations in this case suggest conversion symptoms. Contrary to the preceding case, however, there was always a tendency to react to emotional stress with objective uterine dysfunction.

R. S., age 45. Married, no children.

Pyknic. Hysterectomy at the age of 30. She complains of depression, "nervousness," "heart is beating all the time," headache, backache, hot flushes for five years.

Patient describes her childhood as happy. She resembles her mother. "I am like my mother, everybody says so. I feel like my mother. She had a poisoned toe, I have the same thing." Patient is the third of five children.

Her first period at the age of 13 upset her terribly, and she cried a lot. She says that she was "passionate" before marriage but "did not do anything." Marriage at the age of 28 to a man who was one year older. The husband suffered from premature ejaculation, which soon developed into impotence. It was also found that he was sterile. Soon after marriage she developed severe dysmenorrhoea with metrorrhagia, and two years afterwards a hysterectomy was performed. It is noteworthy that while the family history was taken the patient interrupted herself and volunteered the following statement: "For that I am suffering . . . . because I have no children. I saw my mother was all right and my sister who had ten children is all right too."

The dysmenorrhœa and hypermenorrhœa which led to hysterectomy began after she had discovered that her husband was impotent and sterile. The fact that she has no children now presents the main content of her depression. In this case we were unable to find out what anatomical diagnosis had indicated a hysterectomy.

There are 10 more among our 22 cases of artificial menopause in which the hysterectomy was preceded by a period of very serious marital stress. However, as pointed out above, our observations on this point are not well enough controlled to allow any definite conclusions. This problem is of sufficient practical importance to warrant another study. Suffice it to say that a descriptive study of single cases suggests very strongly that the "conversion" mechanism in these cases refers not only to subjective pelvic complaints but to uterine dysfunction.

Thus we see that the reactive depression which we call "menopausal" is only an accentuation of a maladjustment which has been present before. The "menopausal" part of it *i.e.*, those signs and symptoms which make the patient primarily consult a physician or gynæcologist rather than a psychiatrist, is due to complex mechanism of conversion which are partly ideational-symbolic, partly physiological. The ideational-symbolic component is easily understood. The patient with a tragic marital situation feels either "hurt" ("It is a feeling down here as if somebody had kicked me") or "endangered" ("I have a frightening feeling down here") in the area of the reproductive organs. The physiological component is much more obscure. Little is known so far about the central-nervous pathways concerned with the œstrous cycle.

Our cases showed many features which suggest that an intensive qualitative study of single cases, rather than an extensive quantitative one, would have yielded material very significant for the genesis of this reaction. In several of the cases, for instance, with violently injurious marital setup, we obtained the impression that something in the patient's own psychosexual development had brought her into this situation.

After surveying our case material we agree with Buxton (1944) that so-called menopausal patients are "in need of psychiatric care and socio-economic adjustment." We also agree with Hoskins (1944) and Deutsch (1945) that the true aim of a rational psychotherapy would be sublimation. Many of the patients, however, lack the inner resources required for the attainment of this goal. Therefore in most cases the therapy has to remain symptomatic, and the prognostic outlook is not favourable.

Summary and Conclusions

Fifty patients who attended a medical or gynæcological outdoor department with the diagnosis of "menopausal syndrome" were examined psychiatrically with interviews, social histories and, in all but 5 cases, Rorschach tests.

In 23 cases the emotional disturbances were the chief spontaneous complaint so that a psychiatrist had been called in as consultant. The remaining 27 cases would not have been seen by a psychiatrist, had it not been for this study.

"Menopausal depression" is a uniform clinical picture; it is a reactive depression which presents only an accentuation of a previously existing maladjustment. It is clearly distinguishable from other so-called involutional disorders. The "causes" of this depression in the group examined are most frequently crude and obvious. They are almost exclusively associated with marriage and reproduction.

The patient's premorbid personality differs essentially from that described by previous authors as characteristic of involutional psychoses.

There is no correlation between the intensity of hot flushes on one hand and the severity of the emotional disturbance on the other. There does not appear to be any correlation between estrogenic deficiency and the severity of the emotional disturbance. Among complaints, pelvic pain is most intimately associated with the more severe forms of maladjustment.

Considerably more of the cases of artificial menopause were found among the severely maladjusted women. In the majority of these cases, however, the injurious life situation preceded the artificial menopause. A qualitative descriptive study of these cases suggests that the patients reacted to psychological traumas with uterine dysfunction.

From this it appears that the "menopausal" character of these depressive reactions is due to an additional conversion mechanism. An attempt is being made to explain this mechanism on the basis of our case studies.

BIBLIOGRAPHY

Boismont, Brière de. Die Menstruation (translated by Krafft). Berlin, 1842.

Börner, E. Die Wechseljahre der Frauen. Stuttgart, Enke, 1886.

Buxton, C. L. Medical therapy during the menopause. J. Clin. Endoc., **4**: 591, 1944.

Carlson, C. C. Female sex hormones in involution melancholia; preliminary report. Northwestern Med., **36**: 55, 1937.

Deutsch, Helene. The psychology of women. Vol. 2, Grune & Stratton, New York, 1945.

Dreyfuss, G. L. Die Melancholie, ein Zustandsbild des manisch-depressiven Irreseins. Fischer, Jena, 1907

Farrar, C. B., and Franks, R. M. Menopause and psychosis. Am. J. Psychiat., **89**: 1031, 1931.

Glaevecke. Körperliche und geistige Veränderungen im weiblichen Körper nach künstlichem Verlust der Ovarien einerseits und des Uterus andererseits. Arch. Gyn., **35**: 1, 1889.

Hegar, A. Die Kastration der Frauen. Leipzig, 1878.

Hoskins, R. G. Psychological treatment of the menopause. J. Clin. Endoc., **4**: 605, 1944.

Hoskins, R. G., and Wheelon, H. Ovarian extirpation and vasomotor irritability. Am. J. Physiol., **35**: 119, 1914.

Kisch, E. H. Das klimakterische Alter der Frauen in physiologischer und pathologischer Beziehung. Erlangen, 1874.

Lipschitz, R. Zur Aetiologie der Melancholie. Mon. f. Psychiat. Neur., **18**: 193, 358, 1906.

Little, G. A., and Cameron, D. E. The effects of theelin on anxiety. J. Can. Med. Ass'n., **37**: 144, 1937.

Malamud, W., Sands, S. L., and Malamud, J. The involutional psychoses: a social-psychiatric study. Psychosom. Med., **3**: 410, 1941.

Merson, J. The climacteric period in relation to insanity. West Riding Lunatic Asylum Rep., **6**: 85, 1876

Miale, F. R., and Harrower-Erickson, M. Personality structure in the psychoneuroses. Rorschach Research Exchange, **4**: 71-74, 1940.

Palmer, H. D., and Sherman, S. H. The involutional melancholia process. Arch. Neurol. Psychiat., **40**: 762, 1938.

Peaslee, E. R. Ovarian tumours. Their pathology, diagnosis and treatment, especially by ovariotomy. London, H. K. Lewis, 1873.

Pollack, B. Endocrine therapy (estrone, estrogen) in involutional psychoses. Med. Rec., **149**: 333, 1939.

Rapaport, D. Diagnostic psychological testing. Vol. 2, The Year Book Publishers Inc., Chicago, 1946.

Schube, P. G., MacManamy, M. C., Trapp, C. E., and Houser, G. F. Involutional melancholia. Treatment with theelin. Arch. Neurol. and Psychiat., **38**: 505-512, 1937.

Shorr, E. Problems of mental adjustment at the climacteric in "Mental Health and Later Maturity," supplement No. 168 to the Public Health Reports, U. S. Public Health Service, p. 125, Washington, 1942.

Skene, A. J. C. Gynaecology as related to insanity in women. Arch. of Med., **3**: 1, 1880.

Stelzner, H. F., Von Klimakterium, Erotik und Sexualität. Münch. Med. Woch., **76**: 1974, 1929.

Tissier, L. De la castration de la femme en chirurgie (operations d'Hegar ou de Battey). Thèse de Paris, No. 208, 1885.

Werner, A. A., Kohler, L. H., Ault, C. C., and Hoctor, E. F. Involutional melancholia; probable aetiology and treatment (theelin, female sex hormone). Arch. Neurol. Psychiat., **35**: 1076, 1936.

Werth. Über Entstehung von Psychosen im Gefolge von Operationen am weiblichen Genitalapparate. Verhandl. der deutschen Gesellschaft für Gynäkologie. Leipzig, **2**: 60, 1888.

Willis, T. Collected works, English translation, p. 39, London, 1684.

PSYCHIATRIC FACTORS IN MEDICAL STUDENTS WHO FAIL[1]

R. W. WAGGONER, M.D., AND THORNTON WOODWARD ZEIGLER, PH.D.

Ann Arbor, Mich.

The need for some adequate means of selection of students for medical school has long been apparent. Some years ago the Moss Aptitude Test was developed and is still being used. This test does not appear to be a satisfactory screen at the University of Michigan. Some students with high aptitude ratings fail and some with low ratings succeed. Beginning in the spring of 1939 at the University of Michigan Medical School, a small group of failing students was examined in the department of psychiatry in an attempt to determine the cause of failure. The discovery of the psychological difficulties, emotional maladjustment, poor study habits and poor reading habits among these students led to an attempt to set up a useful battery of tests, which, with the psychiatric examination, might serve to determine which failing students could be salvaged. It was hoped that these procedures ultimately might be extended to serve as an admission filter. The results of these students as well as the various tests tried and later rejected will be discussed.

Shortly after the study was begun in 1939, the promotion board of the medical school began using the results of these examinations to determine whether a student should stay in school or be dropped. Similarly, the dean and the admissions committee sent many students for examination as part of the admission procedures. The recommendation from the psychological findings was based on a type of analysis of psychometric results similar to that described by Rappaport as "Diagnostic Testing." This type of analysis is less concerned with the actual numerical scores earned by the examinees than with other findings of such factors as difficulty with abstract thinking, extreme emotional tension during the examination or mental confusion. The results of these studies were then coordinated with the psychiatric examination and a final report was made to the dean of the medical school.

Certain tests were tried and later discarded. The Grace Arthur Performance Test was soon dropped because usually the scores earned by our subjects fell beyond the published norms. The Traxler High School Reading Test which was used for reading rates was later dropped when it was shown to have no constant correlation with accurate retention of or comprehension of written materials with our subjects. The Progressive Achievement Tests, Advanced Battery, was used for reading comprehension and vocabulary but was dropped when routine group testing was started as it required more time to administer and was harder to score than the Nelson-Denny Reading Test. The Strong Vocation Interest Inventory was tried and dropped as almost without exception the students earned high scores in medical interests. Several personality inventories, among them the Bernreuter and the Humm-Wadsworth were likewise disappointing. Through this series of tests we were made increasingly aware of the relatively important rôle played by emotional stability, good situational adjustment and motivation. Among students with even very high I. Q.'s a relatively minor maladjustment occasionally resulted in academic difficulties. They could usually be remedied by brief psychotherapy. On the other hand, it appeared that strong motivation and good adjustment could often compensate for an I. Q. which under average circumstances would be considered inadequate.

In addition to this preliminary study which embraced a total of 135 failing students or applicants for admission, we were able to study the 10 sophomores who had the highest freshman class average in June, 1940. Their Binet I. Q.'s ranged from 128 to 149, their Grace Arthur Performance I. Q.'s from 112 to 150. Their reading vocabulary scores

[1] Read at the one hundred and second annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

were uniformly good as measured by the Progressive Achievement Test and were all above the 90th percentile for college freshmen. Reading comprehension on the same test varied from the 55th to the 99th percentiles. The most important finding was that with two exceptions they showed no emotional breakdown on the tests and were able to work at full capacity during the procedure. These 2 men were beginning to have some difficulty with sophomore subjects. One of them had a Binet I. Q. of 148 and an Arthur I. Q. of 122; the other had a Binet I. Q. of 128 and an Arthur I. Q. of 150. Both of these men ultimately were graduated with their class. Of the remaining 8, one transferred to the Harvard Medical School and 7 were graduated with distinction.

In the spring of 1943, funds became available with which it was possible to employ an additional psychologist so that routine testing of the 148 freshmen then in the medical school could be undertaken. The tests chosen for the battery and the reason for their choice were as follows:

Revised Stanford Binet Form L.—This test yields an I. Q. which is readily interpreted by most persons interested in this type of problem.

The Wechsler-Bellevue Adult and Adolescent Scale.—Here we have the advantage of additional material, especially the performance test, the Wechsler system of equated weighted scores, and adult standardization.

The California Test of Mental Maturity.—This test was not too well known, hence probably would be new to the subjects, and had the advantages of group presentation and of individual standardization of subtests which would yield a scatter pattern.

The Nelson-Denny Reading Test for High School and College Students.—Its advantages were ease of administration and scoring, and we felt that reading was an important tool for medical students. Results of this test were discussed with the students and suggestions offered where needed.

The Wrenn Study Habits Inventory.—This easily administered and scored test forced the student's attention to his study habits, yielded a numerical score and could be used as a basis for advising the student.

Shipley-Hartford Retreat Test for Mental Deterioration.—We felt that as most of our failures were associated with psychological difficulties this test might yield useful information.

Rorschach Examination.—This procedure was chosen as being the best possible, fairly well standardized, method of studying the personality of the student.

Out of the original experimental group of 148 students, only 8 were dropped from the medical school for academic failure, although 47 percent incurred one or more grades of D. An additional 9 withdrew or dropped back one year for reasons of finance, health, and in one case poor grades. The figures are arranged as follows: Data for each test were tabulated in such a fashion that the column graphs show over-all heights equal to the total number of students falling within the class limits given at the bottom of the graph. The height of the checkered portion of the column represents the failing students, the white those with one or more D's, and the black those with clear records.

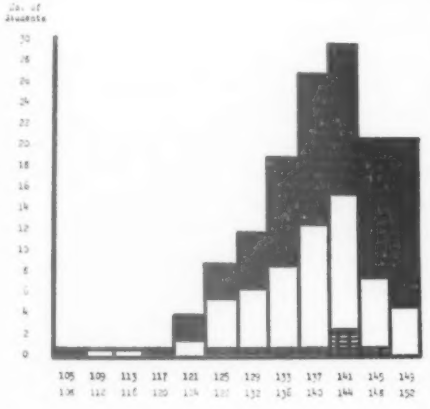


FIG. 1.—Revised Stanford-Binet I. Q.'s.

Fig. 1 shows the distribution of Binet I. Q. for the dropped, the "D," and the clear record groups. The failing students fall in the middle I. Q. range. There are but few students whose I. Q.'s fall below 132 (in all 29, or 20 percent). The number of students earning D's is more nearly related to the number of students in each class interval than to the I. Q. range itself. The extremely high I. Q. range, 149-152, however, is relatively free from D grades.

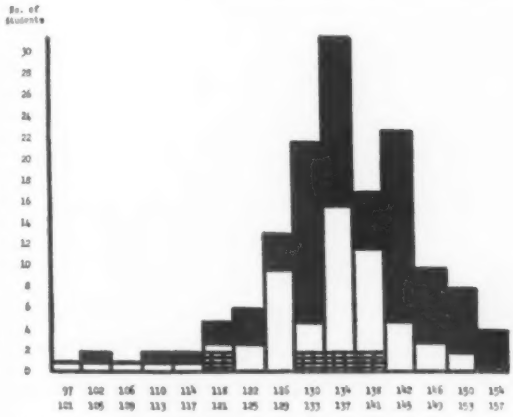


FIG. 2.—Wechsler-Bellevue full scale weighted scores.

I. Q. Again there are no advantages in using the language or the non-language scales separately. While there may be some relation between scores and success it is certainly not sufficient to use in predicting success.

Fig. 4 gives the distribution of vocabulary scores on the Nelson-Denny Reading Tests.

Fig. 5 shows similar results for Nelson-Denny Paragraph Meaning and Interpretation Scores.

Fig. 6 presents the Wrenn Study Habits Inventory Scores.

Fig. 7 gives the Shipley-Hartford Retreat Test for Mental Deterioration scores in terms of conceptual quotients.

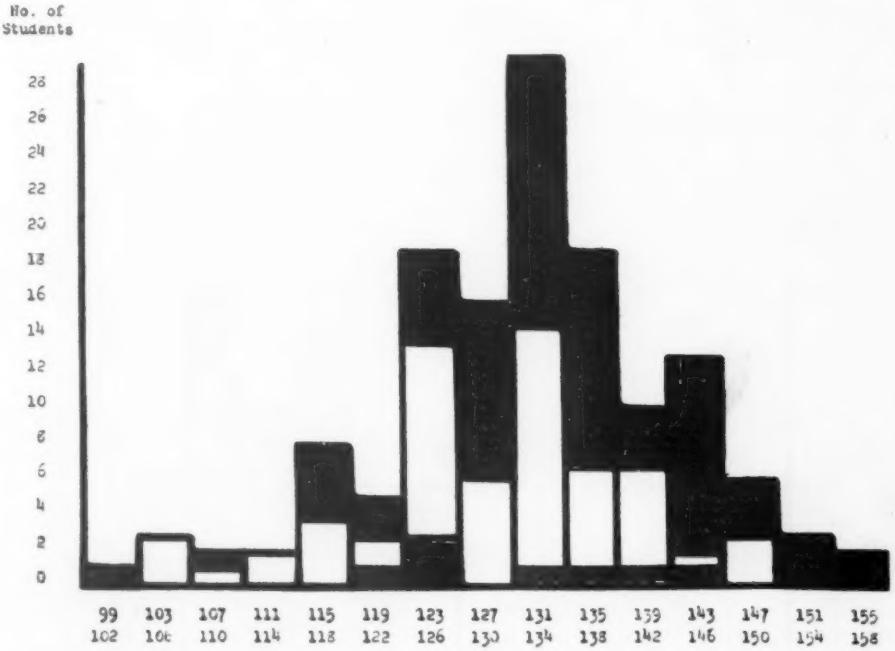


FIG. 3.—California Test of Mental Maturity, full scale I. Q.'s.

Fig. 2 shows the Wechsler-Bellevue results expressed in total weighted scores rather than in the less spread out I. Q.'s. Separate graphs of the verbal and of the performance scale were made but similar distributions were found. In general, the results yielded by the Wechsler, either whole or part scores, agree well with the Binet findings.

Fig. 3 presents the results of the full scale of the California Test of Mental Maturity. The class intervals are in terms of the

Fig. 8 gives the results of the Moss Medical Aptitude Tests in terms of percentiles as reported to the medical school for the 78 students who had taken the test.

In the case of 2 students, psychiatric examinations uncovered conflict as the result of a desire to study medicine and a sense of duty with respect to military service. Two students were simply following out the family tradition of medicine and their medical school difficulty reflected a parental conflict. Adequate motivation was lacking

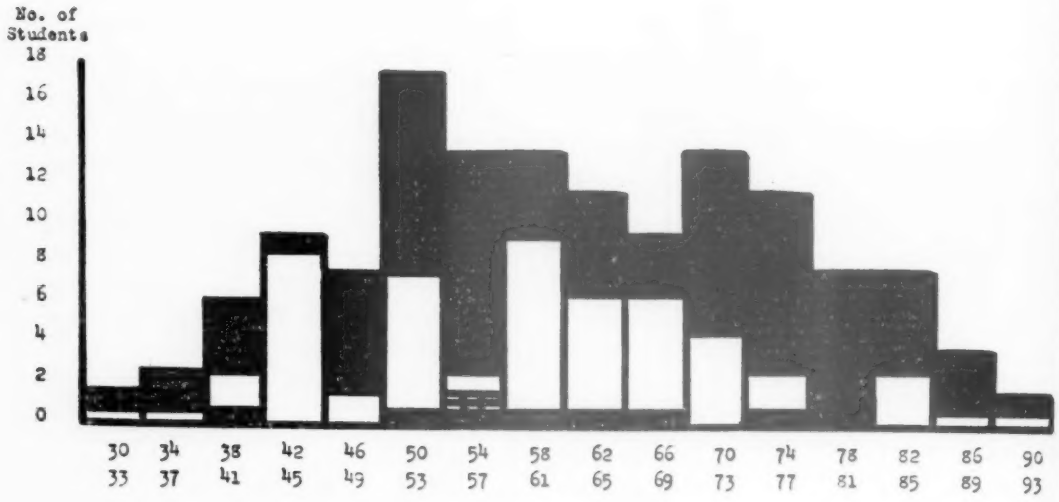


FIG. 4.—Nelson-Denny Reading Test, vocabulary percentiles (college senior norms).

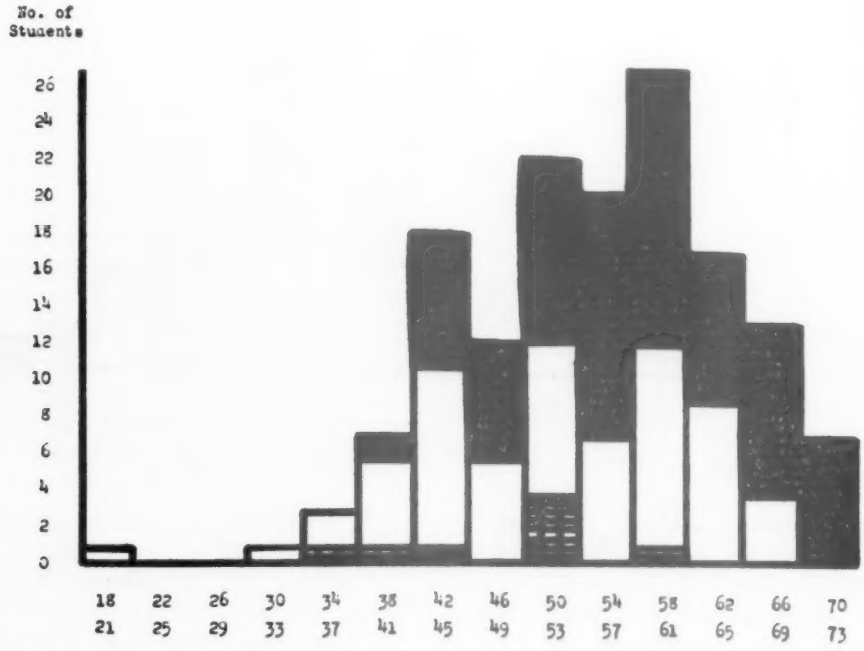


FIG. 5.—Nelson-Denny Reading Test, paragraph meaning and interpretation percentiles (college senior norms).

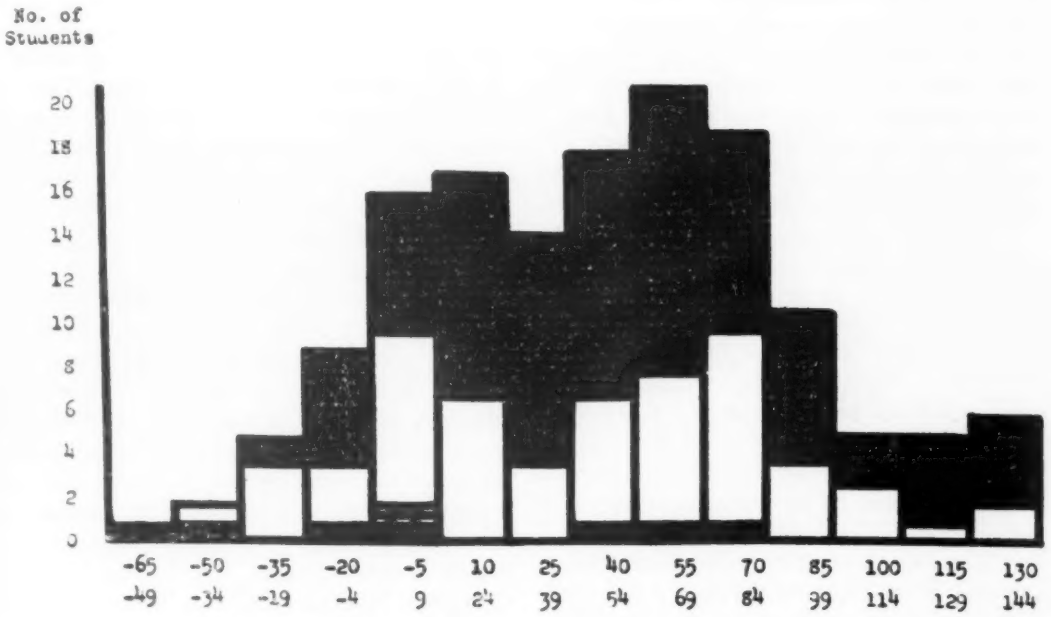


FIG. 6.—Wrenn Study Habits Inventory, algebraic sum of scores.

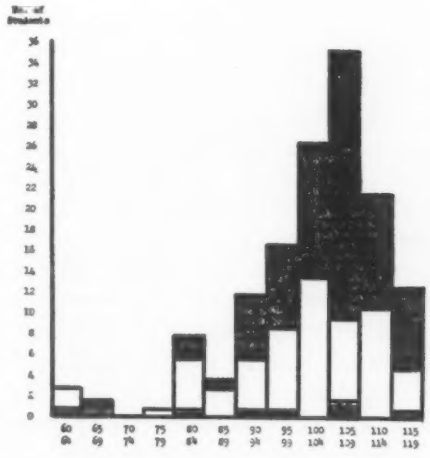


FIG. 7.—Shipley-Hartford Retreat Test for Mental Deterioration, conceptional quotients.

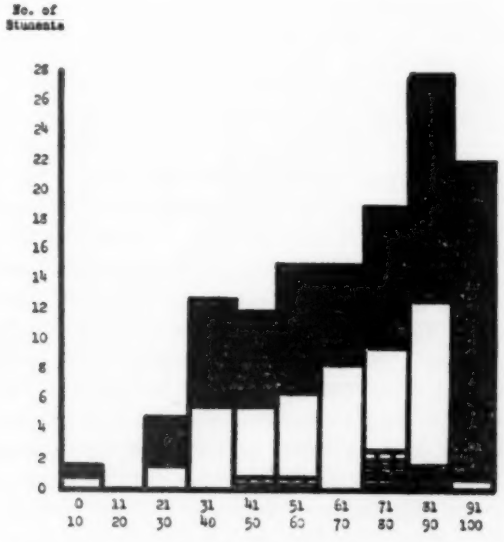


FIG. 8.—Moss Medical Aptitude Test, percentile scores (78 students).

in these as well as other cases. Two were involved in serious sexual conflict. Two were unable to discuss their problems with the examiner; one of these was blocked and showed flattened affect. One, aged 35, was successful in public health education and entered medical school because he felt that a medical degree would make it possible to go farther in his profession. His age led to problems of adjustment with students and faculty in the medical school.

From the above it is obvious that the outstanding problems in these failing students would not be brought out in any one type of tests nor by any numerical scoring system. Emotional maladjustment, lack of sufficient motivation, lack of ability, or a combination of two or more of these were the causes of failure.

From the foregoing figures, it is apparent that no one of the tests reported yields scores which can be trusted to predict academic success at the University of Michigan Medical School. It is felt that brief summaries of the records of the successful students with low Binet I. Q. as well as those of the failed students would be of interest.

The students with low I. Q., who were successful, showed good approach to the test situation. They were attentive, worked hard and were not disorganized by failure on one or more test items. Their ability for "abstract" thinking while not high was commensurate with their intellectual level. They showed good ability to memorize connected material.

On Rorschach examination there was evidence of striving, constricted personality as well as some degree of immaturity and anxiety. None of these factors was associated with impairment of intellectual efficiency and in general the Rorschach patterns were similar to those of the whole medical class. Of this low I. Q. group, 2 were apparently of superior intelligence but, because of their foreign language background, their intelligence scores were deceptively low.

Of the 8 failing students, Rorschach examination showed definite disturbance in the 7 cases in which it was available. All showed some evidence of immaturity, and 5 were definitely prone to impulsive response under environmental emotional impact. Two showed a rather severe tendency to withdraw from reality. The pattern of extreme striving was obvious throughout the group as well. All but one showed evidence of immaturity. In the psychologist's write-up references to emotional disturbance and questionable difficulty with abstract problems abound, showing that the patient's performance on psychological testing was uneven although the final I. Q.'s were within a satisfactory range.

This study was first set up in an attempt to determine some of the factors which caused students to fail in the medical school at the University of Michigan. It seemed likely that an adequate psychological and psychiatric study would bring to the surface some of the reasons for failure. Psychometric studies sometimes gave evidence of intellectual incapacity. In other cases the psychological studies showed evidence of adequate intellectual ability but there was still academic failure. In most of these instances, information indicating conflictual situations of one sort or another was obtained by psychiatric interview. Rorschach studies frequently gave information of value or resulted in leads which would indicate the trend to be taken by the psychiatric interview.

The consistent correlation between the Rorschach studies and the psychiatric interview was significant. We believe that a proper correlation of the psychological tests with the Rorschach and the final correlation of these with the psychiatric interview enabled us to make a fairly accurate prognosis of the individual's ability to succeed in medical school work. In a number of instances in which the student was doing failing work and in which the studies indicated problems likely to be amenable to treatment, the student was retained in medical school at our request in spite of the fact that his record was such as to indicate that he ought to be dropped. In only one of of these cases, in which we sincerely felt that by therapy the individual would be able to make a satisfactory medical school adjustment, were we wrong. In a number of

instances, students who were doing failing work in the medical school improved sufficiently after therapy to graduate with good records.

In several instances where we recommended that the student be dropped because of some serious personality defect, later developments proved that our recommendations were correct. One boy who was beginning to have some difficulty, although his record in the main was good, was referred to us for study. The Rorschach demonstrated evidence of strong schizoid trends. The psychiatric examination suggested that these trends were of sufficiently serious nature to warrant the boy's removal from the medical school. Somewhat more than a year later, we had a request for information from an institution in the East where he had become a patient with a well-developed schizophrenia.

Factors which seemed important in order that a satisfactory medical school record be made seemed to be divided roughly into three parts: (1) psychological factors such as intelligence, ability to read rapidly and well, and vocabulary; (2) a personality structure which enables the student to sustain the emotional stresses associated with medical school work; and (3) a relative freedom, at least in most instances, from situational stresses which produce conflict and so reduce the student's efficiency of work that he is unable to acquire satisfactorily the material necessary to meet the level of accomplishment established by the medical school.

It has been determined by these studies and by our experience that in numerous instances these latter factors can be so influenced by therapy that the individual can go on and do satisfactory work. Obviously, we do not know what kind of physicians such individuals will make. I have in mind one student who was given some therapy, was able to complete his medical school work satisfactorily, but has since been doing badly in his hospital adjustment. He had strong schizoid trends and his environmental experiences had been such as to more or less continuously disturb his emotional adjustment. It is our opinion that he did not have sufficient therapy to reorient himself properly and that this may account for his poor medical adjustment. The question is still open as to whether or not these men ought to be continued in medical school, even though they are able to make a satisfactory record. It is important to remember that we select students for medical school not only on the basis of ability to make a satisfactory academic record but for the intellectual and personality characteristics which will make them good physicians as well.

The dean of our medical school and the promotion board have been sufficiently impressed by the results of these studies to routinely refer students who have any difficulty whatever in the medical school to us for study, if on interview in the dean's office there appears to be any question, either academic or of personality, which indicates the need for such a series of studies. Almost invariably, the recommendation of our department based on these studies is accepted. We believe the relatively low percentage of actual failure in the class reported was related to the fact that failure in one or more courses automatically resulted in adequate psychiatric examination with psychotherapy where indicated. In most instances this was successful in salvaging the worth-while student.

In conclusion, it is obvious that one cannot by the use of any one test predict medical school success. We believe it is advantageous to set an I. Q. limit of 130 on the Binet simply because that is the dividing line between our lower 20 and upper 80 percent. We believe that for students with I. Q.'s below 130 the competition will be severe both in medical school and after graduation. It is probable that where a number of different tests are given a low score on one test may be compensated for by a high score on another, *i.e.*, a poor reading ability may not be crippling when it is associated with high intelligence, or a not too intelligent but highly motivated, well-adjusted boy may be successful. The one test most needed in this field is one for motivation. We have used a crude test of this sort. In certain instances during the psychiatric interview, it is indi-

cated to the student that our report will be unfavorable. The student's reaction to this is noted. If his findings are borderline but his reaction to this situation indicates a strong healthy motivation, we then make a favorable recommendation.

Our results suggest that an adequate psychiatric interview coordinated with a Rorschach examination and certain selected psychological studies properly interpreted will yield information from which an adequate selection of medical students can be made.

A PSYCHIATRIC SCREENING AID FOR PRE-COMBAT TROOPS

LT. COL. OSCAR B. MARKEY, M. C., AND FIRST LT. MILES M. ZISSON, A. G. D.

After a group has been trained technically and physically for combat, one must answer the question: Is it ready to face the surprise and exhaustion attendant with actual combat? Or does that particular group include too many inadequate people who will affect the group adversely and therefore reduce the chances for success of the operation? Although much attention has been given to screening out all possible psychiatric casualties on the induction, reception center and replacement center levels, relatively little has been reported on the study of groups as such, for the determination of group stability and balance. This is all the more important when a group has been finally integrated for a combat experience. Unit commanders and medical officers charged with the care and disposition of soldiers have frequently complained that too many unstable men are being sent into combat and combat support units. The psychiatrist should be on continual watch for such men for the purpose of recommending their reassignment to military occupations which are less apt to produce acute or prolonged emotional strain. True enough, these men will remain a challenge in more protected zones also, but they are more likely to adjust satisfactorily away from the zone of operations. A device which could reveal group capacity for strain, tension, surprise and exhaustion, would be a valuable aid in planning for an operation.

Selection and Administration of Test

Consideration was given to several well-known group tests, including the Minnesota multi-phasic, The Cornell selectee index, and the Harrower-Erickson modification of the Rorschach test(1). The Rorschach has long proved its usefulness in the study of individuals and has the advantage of offering unconventionalized images which challenge expression rooted in the deepest layers of the personality. The group Rorschach has the advantages of briefness, ease of administration, and a considerable background of usefulness in civilian and military situations(2). Harrower-Erickson's modification(3) is based on the fundamental idea that so-called normal individuals will "see" normal images in the series of ten symmetrical ink blots, while ill-balanced individuals will "see" bizarre or unusual images. Whereas, in the individual test, spontaneous selections are made by the subject, in the group test, ten (10) suggested selections are offered for each card. No effort has been made in this report to discuss the particular advantages or shortcomings of this method or the selections suggested, nor were second choices evaluated. The aim was not experimental, but utilitarian; therefore Harrower-Erickson's method was followed carefully without any significant changes. There was no time for the development of a new or modified psychological tool.

Nine hundred thirty-three (933) soldiers were studied. They constituted a closely-knit army unit being readied for an operation and had been assigned to a wide variety of military occupations on an administrative level. The test was given to groups of about 225 each, in a movie auditorium. Purposes were explained to the men in such a way as to enlist their cooperation. They were apparently pleased with the opportunity to act as an experimental group. Mounted slides were not available at the time, but the original Rorschach cards were satisfactorily projected on the screen(4). Proof of the soldiers' acceptance of their role lay in the fact that only one paper in the entire group had to be discarded. Harrower-Erickson's conditions of administering the test were followed closely. The written directions were read aloud by the examiner after each card was projected on the screen and an adequate number of proctors was available for supervision and help.

Evaluation and Standardization

The proctors checked the papers under supervision. Their responsibility was to

check the number of "adequate" and "poor" responses. The examiner determined that the total protocol in a given case was "adequate," "doubtful," or "poor." No effort was made to classify the responses by specific diagnosis because (a) the individual test is far more reliable in this respect and (b) the nature of the individual disorder was considered less important than the general emotional inadequacy that it suggested.

In a previous study made by one of these examiners (OBM) in a replacement training center [1] covering groups totalling about 4000 men, the group Rorschach was found to be unsatisfactory because too many men were revealed to be emotionally unstable. It was thought that the difficulty may have been primarily due to too high a set of standards. The assumption is made that any established group can carry only so many inadequates. To define group stability is scientifically impossible, inasmuch as there is no fixed factor in personality evaluation, either of the individual or the group. The individual is compared with himself and the group, the group with itself and other groups, with changes in the individual and the group personality pattern a continual possibility. Where the highest degree of group unity is necessary, as in a battle situation, the percentage of inadequates must be reduced to a true minimum. Where the group is split up into small units and occupations less dependent on unity, a higher percentage of emotional inadequates can be absorbed. Experience suggests that perhaps 85% of "normals" can carry 15% of "inadequates." Six can operate reasonably with one inadequate, but a group of 5 is likely to waver. In Harrower-Erickson's new book, 5 lower standards have been experimented with. If these are followed, a "cutting point" of 5 poor selections is likely to reveal that about 85% of a "normal" group will be shown to be adequate. On this assumption, it was decided that those making:

8, 9, 10 poor responses had *poor* emotional stability.
6 or 7 poor responses had *doubtful* emotional stability.
5 or fewer poor responses had *adequate* emotional stability.

[1] Camp Fannin, Texas, 1944; unpublished.

Results of Study

On the basis of the above standards it was found that:

7.5% had *poor* emotional stability.
11.25% had *doubtful* emotional stability.
81.25% had *adequate* emotional stability.

There were 26 subsections, the largest (designated as "A" Company) being composed of 237 men. It is reasonable to expect that such a large subsection, originally selected substantially along the same qualification standards as the entire group, will correlate well with the total group. This is definitely borne out, as follows:

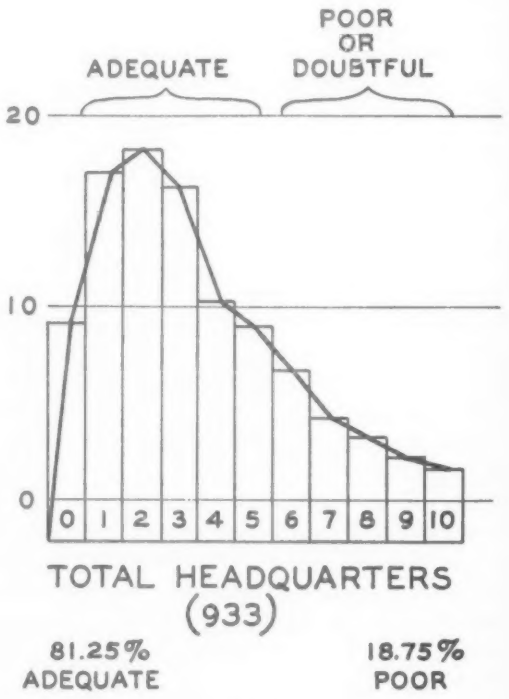


Fig. 1.

Total group, 81.25% "adequate"; 18.75% "doubtful" or "poor."
"A" Company, 81.44% "adequate"; 18.56% "doubtful" or "poor."

"B" Company, composed of 159 men, had been activated for less specialized occupations and was known to be inferior to the general group in intelligence, performance and general balance. The Rorschach findings bore this out, as follows:

Total group, 81.25% "adequate"; 18.75% "doubtful" or "poor."
"B" Company, 70.44% "adequate"; 29.56% "doubtful" or "poor."

Clinical Controls Used

Fifty men were chosen for "blind" psychiatric interviews, done about equally by two examiners. Half had "adequate" and half had "poor" ratings. The interviews, though relatively brief, were comprehensive enough. An explanation was given to each man to relieve his anxiety and to obtain his active cooperation. The correlation was found to be exceedingly high and well beyond the element of chance. Forty-four diagnoses ("adequate," "poor" or "doubtful" emotional balance) confirmed the test pictures. Two diagnoses were doubtful and might have been called confirmatory.

Chiefs of section were then interviewed for two purposes: (a) to compare the group configuration, as revealed by the test, with opinions formed by the interested officers, and (b) to discuss the findings in selected individual cases (especially those showing 10 poor selections). There were no major discrepancies between the opinions expressed and the test results, as far as the group pattern was concerned, even in subsections containing as few as 20 men. This did not hold in the individual cases, however, confirming the belief that the group Rorschach as administered to a group is not a reliable aid to individual diagnosis.

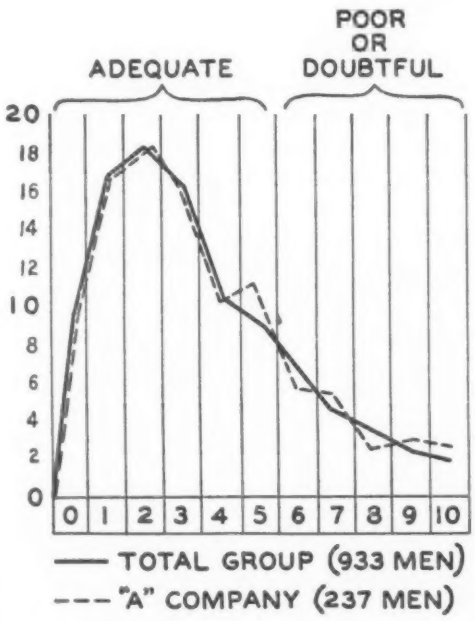


Fig. 2.

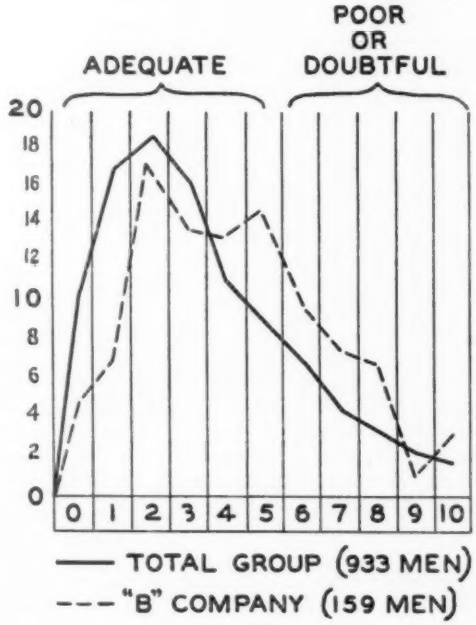


Fig. 3.

Comments and Conclusions

1. The group Rorschach (Harrower-Erickson modification) was applied as a device for screening out unstable men in a group being readied for an operation. The results suggest it is a reliable auxiliary to a psychiatric program and that it may be safe as a substitute where time is limited.

2. The main advantage lies in the elicitation of the degree of group stability in terms of percentage of poor risks. Where an arbitrary pattern is previously agreed on by line officers, medical officers and psychiatrist, the test results will indicate favorable or unfavorable deviation from the pattern. "Doubtful" or "poor" men can then be given full psychiatric study and proper disposition. The group test, as given to a group, is not a reliable aid to individual diagnosis, as compared with the original, individually administered Rorschach.

3. Secondary advantages are pronounced, partly because the nature of the test is quite intriguing to officers. As in all tests, the re-

sults and reports accented attention on all the men, especially those who gave poor responses.

4. It is contemplated that the device will be applied to a resting division. One battalion may be screened without the test aid and prognosis on the frequency of psychiatric disorder incident to battle will be compared with that offered in a related battalion screened by the Harrower-Erickson Rorschach method. If the results are favorable, the device will have passed another trial by usefulness.

BIBLIOGRAPHY

1. Harrower-Erickson, M. R. and Steiner, M. E.: Large scale Rorschach technique: A manual for the group Rorschach and multiple choice test. Springfield, Ill. Charles C. Thomas, 1945.

2. Harrower-Erickson, M. R. and Steiner, M. E.: Modification of the Rorschach method for use as a group test. J. Genetic Psychol., **62**: 119-133, 1943.

3. Harrower-Erickson, M. R.: Directions for administration of the Rorschach group test. J. Genetic Psychol., **62**: 105-117, 1943.

4. Harrower-Erickson, M. R.: A multiple choice test for screening purposes (for use with the Rorschach cards or slides). Psychosomatic Medicine, Vol. 5, No. 4.

PROCEEDINGS OF SOCIETIES

THE AMERICAN PSYCHIATRIC ASSOCIATION

Proceedings of One Hundred and Second Annual Meeting
PALMER HOUSE, CHICAGO, ILL.
May 27-30, 1946

Monday Morning Session

May 27, 1946

The One Hundred and Second Annual Meeting of The American Psychiatric Association convened in the Grand Ballroom, Palmer House, Chicago, at ten o'clock, President Karl M. Bowman presiding.

Chairman Bowman.—I will call the meeting to order, and we will have the invocation by Rabbi Mann.

Rabbi Louis L. Mann.—Our Heavenly Father, we thank Thee for Thy manifold blessings which Thou hast bestowed upon us day by day. We thank Thee for the blessings of home and love and friendship, for all of the influences that enter our lives and mould our characters, and strengthen our wills. Help us to live the life that Thou would have us live.

We thank Thee for the blessings of this, our native land, and we pray Thee in these critical days for vision and understanding, and as we thank Thee for having won the war, so we pray unto Thee for strength to win the peace. We appeal to Thee for understanding, for vision, for the cooperation of all men everywhere for good, that countries everywhere might ultimately be united, that human beings everywhere may unite and live a normal, complete and wholesome life.

We thank Thee for the psychiatrists who devote their lives to the alleviation of human suffering and the prolongation of human life. We thank Thee for every influence that makes for the good and the true of the future. We thank Thee that we have eyes that are not greedy as the less fortunate reach toward us, and that we have not turned a deaf ear toward their distress, that our hearts have not been callous.

May the words of our lips, the meditations of our hearts, be exemplified in the deeds of our lives, and be acceptable to Thee, oh, God, our Saint and our Redeemer. Amen.

Chairman Bowman.—We will have the Addresses of Welcome. First, I will ask Dr. Raymond B. Allen, Executive Dean of the Chicago College, University of Illinois, and Dean of the College of Medicine, to speak.

Dean Allen.—It is an honor to join my colleagues Drs. Miller and Irons in welcoming you to Chicago and to the State of Illinois on the occasion of your 102nd Annual Meeting. I bring you the cordial greetings and best wishes of the University of Illinois which for many years has recognized the field of psychiatry as an important and rapidly expanding discipline of the medical sciences. This recognition embraces, of course, neurophysiology, neuropathology, psychology, and psychiatric aspects of social medicine. As your knowledge of men has grown and as your skill in the treatment and prevention of mental illness has improved, it is evident that psychiatry has moved abreast of the older clinical specialties in its contributions to the health and the general welfare of mankind. Indeed, it may soon pass them. Modern psychiatry uses all the tools of precision investigation, including chemistry, biophysics, electrophysiology, together with methods af psychology, psychosomatic medicine, and certain aspects of social medicine. By social medicine, I mean the interaction of the social environment with the personality and organism of the individual. These are the tools, or so it seems to me, by which we shall accelerate our advance toward full understanding of the whole life process. Psychiatry has learned much about the human mind and human personality through the use of words and other symbols, chiefly by subjective methods.

Now you are bringing the objective experimental methods of the natural, biological, and social sciences to bear on the most fundamental problems in all of medicine and of the life process itself. You are searching out the sources and the controls of the energy system of nervous tissue. In doing this you will learn some of nature's most tenaciously held biological secrets. I am confident that this broad approach will inevitably lead to a clearer understanding of the function of nervous tissue and, therefore, give information which will be of great value in the prevention and treatment of mental disease. This is what I would conceive to be your research mission in the second one hundred years of the existence of the Association.

Your educational mission, of course, is obvious, and you are already well along the road toward its fulfillment. It is to provide for the widely disseminated teaching of the principles and skills of psychiatry throughout all departments of the undergraduate medical school; this is in order to inculcate the idea that the human being in health and disease must be understood as a whole and not merely as a collection of organs, parts and systems. I understand that you are also taking

steps in your graduate training program to produce specialists who will conceive of themselves as something more than just psychiatrists serving individual patients. We need a new kind of clinician, a social clinician who recognizes that no person lives to himself alone, but that he functions in a social system which is continuously molding his actions and reactions and which he himself tries to mold to his desires. Justice Holmes once remarked, "Man, whether he realizes it or not, is always fighting for the kind of world he wants." This struggle for gratification of personal desires and ambitions, in the environment of the group and subject to its discipline, makes us what we are within the framework of our inherent capacity. In this struggle few achieve perfect balance and complete happiness. I take it that it is the mission of any physician, as well as the psychiatrist, to aid those who need help in adjusting themselves to the great complexities of life in this industrial age. Your mission in education will be incomplete until you have helped men in practice to understand the place of psychiatry in the doctor's medicine kit. You have a special responsibility toward general practitioners and family doctors in this regard. This will call for the kind of aggressive planning which the Association and the National Council on Mental Hygiene and other organizations have instituted in recent years. It should be emphasized that this program, while stimulated in large degree by the adjustment problems of veterans of World War II, must be equally concerned with "operational fatigue" among civilians. Mental casualties on the civilian front have been with us always. All the skills of the medical profession are needed to combat maladjustment and mental breakdown in every walk of American life. Without integrity of personality and mind in the individual, we cannot hope for integrity and unity as a nation and as members of one world.

Now may I give you a few questions which should concern every thinking American. The first is whether man has sufficient wisdom, humility, and social consciousness to use his newly-found material powers for the constructive purposes of all mankind. Free men have proved that democracy, and our republican system of self-government particularly, has the inherent strength to be victorious in a world at war; we have yet to prove that we can win a durable peace. Never before has the intellectual, spiritual and moral life of man faced a test of such a portent for good or evil. Medicine with its age-old concern for the sick, the poor as well as the rich, the weak as well as the strong, has been an influence for good surpassed only by the moral precepts of religion. The services of medicine, like those of religion, have been largely personal. There will always be need for personal services, but medicine of the future, if it is to progress as a social as well as a biological science, must broaden its outlook and adjust its educational program accordingly. Medicine is coming of age as a social science.

Thinking and planning for democracy must be bold and dynamic, drawing not only upon the talents of individuals, but also upon the social discipline of the group. At times, unfortunately, our system falters. We have great difficulty in distributing evenly the goods and services, including medical services, that our expanding technology pours forth in ever greater abundance. Our social process lacks stability which, perhaps, is but a sign of growth and change. This should not be too alarming. But, when our system becomes so unstable that it upsets our relations with our neighbors and when we lack the self-discipline and social controls to resolve our differences rationally and peaceably, then just to this extent have we failed at one of our primary tasks.

College graduates generally fail to take an interest in legislation, state or federal, even when it intimately affects their own fields of business or professional activity. We have always maintained that training for leadership is a major function of education. If this is true, then we are failing in our purpose when education does not develop in the individual a social and political consciousness to the same degree that it trains him for professional and vocational proficiency. If this is true, may it not also be that here is a significant reason for disharmony between government, that is, social controls within the framework of law, and the citizen who still believes that "that government is best which governs least"? Is our educational system, at all levels, sufficiently conscious of its obligation to educate for responsible citizenship? This, I believe, is a question we must resolve if our Republic is to survive in the critical years through which we are passing.

But there is a larger question, one that concerns every American, whether he is a professional man or not. It is: What has happened to our greatest national asset, the native American spirit; the selfless, Christian spirit that founded this great nation, that unified and preserved it from internal division, that industrialized a continent and that, twice in this century, joined with and led the peace-loving peoples of the earth in conquering tyranny and preserving our right to live as free men? To live for what? For the good life for all men everywhere? Or for the giddy life of getting and spending in which human values are overwhelmed and smothered by the petty value of material things? If the latter is our answer to a starved and war-torn world, if we demand an island of selfish American plenty within a world of want, then we are a dying nation with no hope of realizing our true inheritance of greatness. We are left, it seems to me, with only one choice; we must elect to bring the machine under social control; we must decide that economics should be made to serve the good life for everyone rather than merely that of a favored few; we must recognize that it takes a man, not an adding machine, to understand a man.

Time is short and apparently getting rapidly shorter. We must join hands with enlightened men everywhere, in the church, in business, industry, and labor, in the professions and in

statecraft, to strive for the realization of our native American spirit and for greatness in the "brave new world" in which we live.

As a great profession we must meet our obligations to the society from which we derive our right to exist. Today we are meeting this obligation in one way by adjusting our educational programs to emphasize, in equal measure, the development of social and political consciousness and training for proficiency in professional and technical skills. As medicine assumes its full stature as a social science, we may confidently expect the physician of the future to take his accustomed seat in the councils of community and state as a responsible and constructive citizen. To him the people may rightly look for leadership.

Medicine, like the peace, is indivisible. Its only concern is to advance its understanding of man, in health and disease, wherever on the face of this tortured planet he happens to live and to bring him as much relief from pain and disease as the knowledge and skills of the physician make possible. I look to psychiatry to help lead medicine in the nation's quest for social synthesis and world unity. With your vital contributions to medical science and medical education the doctor of the future will become a social clinician and medicine will add to itself the useful attributes of a social science.

CHAIRMAN BOWMAN.—We will next hear from Dr. J. Roscoe Miller, Dean, Northwestern Medical School.

DEAN MILLER.—*Mr. President, Ladies and Gentlemen:* I want to reiterate what my colleague, Dean Allen, said, about welcoming you to Chicago. It is an extreme pleasure to have this body honor us with this, their 102nd meeting. I am sure everyone is aware of the importance of this gathering. The conflict just ended has focused, as never before, the attention of public and profession alike on the importance of psychiatry in the medical picture. Those not connected with psychiatry are apt to consider it a newcomer on the scene. Of course, nothing could be farther from the truth. It has an unrivaled tradition of antiquity. Even in the United States, no less a medical personage than Benjamin Rush served as midwife to the specialty. Illinois is proud of having played a significant part in development of psychiatry in this country. The first law establishing a juvenile court was enacted in Illinois in 1899. The Institute for Juvenile Research was established in 1909 and was among the first, if not the first such institution in this country. The Illinois Society for Mental Hygiene was organized in 1909 with Henry Favill as President. The State of Connecticut had the first Society in 1908 and Illinois and the National Committee followed by one year. In 1888, Hill called attention to the fact that the Illinois State Board of Health was the only organized body attempting to introduce psychiatry into the medical curriculum.

Yet despite this long history, as recently as 1939 the Council on Medical Education and Hospitals of the American Medical Association stated that psychiatry had not yet found itself in the teaching program.

It is my humble opinion that psychiatry has suffered as the result of medical isolation. The concept of mental illness as part of the whole was thwarted by deflection of patients to institutions removed from medical centers. More often than not, tax-supported institutions for the mentally sick were built and located according to political pork barrels, rather than scientific dictates. The result has been that the teaching of psychiatry has suffered through the lack of clinical material, the patient has suffered because of separation from the best medical science has to offer, and research has been stultified. The importance of research in all branches of science, and particularly in medicine, has been emphasized during the war. It is to be hoped that psychiatry will reap its share of the well deserved harvest which is anticipated. There can be little but a political excuse for the establishment of an insane asylum far from the doctor, the laboratory, the library and, above all, the source of patients. One of the most hopeful developments in American Medicine to occur for a long time, is the program of the Veterans Administration. If they are successful in building their hospitals and out-patients near established medical centers, the results are inevitable. Improved care of the Veteran, training of medical personnel and promotion of research must follow. I express the fervent hope that psychiatry will be an integral part of this program. As one vitally interested in its development, I beseech this potent organization to lend its support and aid to those responsible for its attainment.

In closing, and without prompting by the Chamber of Commerce, may I express the hope that our salubrious climate, the environment of scientific medicine and medical education, plus mid-western good fellowship will add to your pleasure as well as serve as a stimulus during your weighty deliberations.

CHAIRMAN BOWMAN.—Thank you, Dr. Miller. We will next hear from Dr. Ernest E. Irons, President, Institute of Medicine, Chicago.

WELCOMING ADDRESS BY ERNEST E. IRONS, M. D., PRESIDENT INSTITUTE OF MEDICINE, CHICAGO, ILL.

On the occasion of this meeting of the American Psychiatric Association early in its second century of existence with its 3,300 members, I have the honor on behalf of the Institute of Medicine of Chicago to welcome you. Here in Chicago in 1837 was chartered a medical school, which took the name of Rush Medical College, in memory and in honor of Benjamin Rush whose name has been revered by your Association as the patron of

American psychiatry. The first students entered Rush in 1843. In 1844 the forerunner of The American Psychiatric Association was organized, and in the same year the American Journal of Insanity began publication. Three years later in 1847 the American Medical Association was organized. We in Chicago are thus alive as are you to the accomplishments of organizations begun by men of foresight a century ago. In this period many men have contributed to the growth of psychiatry and in due course have passed on. Their accomplishments have been recorded in your important and attractive memorial volume of 1944.

I must pause to pay tribute to a member of the old Rush faculty, and a valued member of your association, Dr. Peter Bassoe whose passing has deprived you of a wise counsellor, and us of a beloved friend.

A multitude of psychic problems beset the patients who come to the internist for supposed physical ailments. They require the same careful exploration as do the more serious cases of psychic disturbances which come to the psychiatrist. Currently the relation of distress of psychic to distress of physical origin has been emphasized under the modern title of psychosomatic medicine. This emphasis is praiseworthy and desirable, but the procedure is not new. Wise physicians have employed this approach for centuries. Listen to the advice of Théophile Bonet, 17th century physician and author of the Sepulchretum, forerunner of Morgagni's Seats and Causes of Disease.

In the Practical Physician, Bonet offers advice drawn from the experience of previous centuries, and from his own practice, as to the conduct and methods of a physician. After discussing the means of detection of simulation of disease and of malingering, he says:

"Many take wrong Advice of Physicians counterfeiting the Headache, Burning in the night, when their is no such thing. Some burn with Lust; Others with Anger; Secret Fear grieves some; A silent Care others: All which things are the fountains and causes of Diseases, unknown to a Physician unless they be told him—For the Physician will abstain from many things and prefer others when he finds an afflicted mind which he would not do, were he content only with what of the Disease he finds apparent."

In the war now concluded psychiatry has rendered services of inestimable value in the healing of the mental wounds of war in the Army, Navy, and Merchant Marine. Practically the entire membership of this association was engaged in one or another war activity, and in meeting the problems of civilians. And then there were not enough. Improved methods of combatting at an early stage the psychic effects of the tension of hardship and the shock of war, were devised by members of this association with resulting decrease in chronic and permanent disability.

Now with the coming of peace there are presented the problems of the development of humanitarian disciplines. These problems go so deep that as Dr. Stecher well points out, the survival of our democracy is seriously imperiled. We have on the one hand to avoid the callousness of those who would continue here the law of the jungle, and on the other an emotional type of thinking in which the attempt to remedy the misfortunes of some, leads to generalizations destructive of the welfare of the majority.

Deep sympathy for the distress of that unfortunate who in one way or another has been temporarily deprived of his livelihood should not lead to the establishment of practices which tend to produce and accentuate economic delinquency. We have already more than enough people who do not want to work.

In forming our judgments of principles and plans for social betterment we are influenced too much by apparent immediate exigencies and seek what seems to be an easy way out, instead of being guided by a review of the events of the history of nations of the past. There we can find the same problems which we face today, and more important, can see how the solutions adopted then, affected those national welfares.

Nor do we need to go back beyond our own history, from the founding of this nation, in which we can review the same kinds of conflicts of interests, the same attempts to array class against class, the same utilization of just complaints to the purposes of chicanery and political advantage.

The fallacies in some of our modern repetitions of Roman, French and early American schemes, such as the creation of an economy of scarcity, the plowing under of cotton and food stuffs, the destruction of little pigs, the manipulation of prices to secure political preferment from one class to defeat another, are now clearly evident. Spending ourselves rich seems in a fair way to be discredited. All of these and similar attempts at economic control depend on some form of managed economy, which in the past has always developed dictatorships, then revolution, and ultimately has brought nations to ruin.

We have become more or less accustomed to the regulation of our economic lives in the successful prosecution of total war, which fortunately for us did not require the severe sacrifices of liberty demanded of some of our allies. In the transition period from total war to what we hope will be total peace, some care is necessary in the relaxations of previously necessary regulatory measures, but unless we wish to travel further down the road to total managed economy, we must stop tampering with the exercise of free enterprise. Within the year we have witnessed the delay in economic recovery, caused by the desire of little men in big jobs to prolong their brief period of authority, and by selfish leaders of deluded minority groups, who have been allowed to paralyze economic recovery, and to impose unrecoverable economic losses on their own constituents. A managed economy is incompatible with democracy.

At present the medical profession is confronted with an attack on its freedom of practice. It is proposed to establish a managed economy of medicine which would destroy the patient-physi-

cian relationship, the fundamental importance of which is nowhere more evident than in psychiatry. The psychiatrist is of necessity an individualist and his work cannot conform to the limitations of a panel. It is true that the work of the psychiatrist is carried on to a considerable extent in institutions, many of which are maintained by the state. The quality of service in the mental hospitals is conditioned largely by the degree of freedom from political interference. The entrance of political preferment into a group of previously well managed hospitals is at once destructive of standards already attained and is a constant threat against the maintenance of institutional morale and competency of service. It is difficult enough to maintain such freedom of practice as we now have, with resultant varying degrees of excellence in our state hospitals. Under national centralization of medical control, even state mental hospitals would feel further the limitations of freedom of practice, as well as a deterioration in quality of younger men who would enter the institutional practice of psychiatry.

The regimentation of medical practice is but one more step in the attempt to change our government from one of free enterprise to one of a managed economy with government by blocs, and an eventual dictatorship.

If we prize our freedom and the opportunity for individual effort, and the chance to continue the advances in medicine which will add to the improvement of standards of human service instead of destroying them, we shall endeavor to maintain the freedom of medicine as free citizens in a democracy.

Again Mr. Chairman, may I welcome you to Chicago and wish you a pleasant stay and a profitable meeting.

CHAIRMAN BOWMAN.—Thank you, Dr. Irons.

I will now call upon Dr. Samuel W. Hamilton, President-elect, to give the response.

RESPONSE BY SAMUEL W. HAMILTON, M. D., PRESIDENT-ELECT

The American Psychiatric Association is happy to come back to Chicago for its 102nd annual meeting. Probably we would have profited by meeting here oftener. We seem to have come first in 1893, the year of the World's Fair, again in 1918, and again seven years ago. On that last occasion we remember gratefully how you enabled us to have a very satisfactory meeting.

There is much about psychiatric accomplishment in Illinois for which we are grateful. The State has always supplied men of weight and influence to the membership of this Association. To mention only a few: Dr. Andrew McFarlane, Superintendent at Jacksonville from 1854 to 1870 was very highly thought of by his colleagues. Richard Dewey, the first superintendent at Kankakee, was one of our leaders. Dr. Zeller, an outspoken and persistent advocate of some important things in the care of the mentally ill was a product of your state service. Dr. Wilgus at Elgin was a friend of mine, a most competent clinician and executive. Dr. Singer at the time of his death was about to be President of both this Association and the American Neurological Association. To our deep sorrow the list of those who have gone on must now include Charles F. Read, for a long time your outstanding hospital head. Many other names of men who have devoted themselves wholeheartedly to the needs of the mentally ill of this state might be added before the category would be nearly exhausted.

We come, then, with pleasure because of agreeable relationships in the present, with reverence for our predecessors who served their fellowmen well. Now you tell us of your present activities, your needs and your ambitions for us. We appreciate your frankness in all this. The world is certainly in a period of trouble. Millions have been slaughtered and other millions will starve before stability is attained. In our own field, hospitals all over the country have been bereft of needed personnel and sometimes have been unable to get needed supplies. Standards of care have suffered. Unfortunately standards of care were already poor in too many places. Enterprising publicists have brought home some of these deficiencies in vivid form and with shattering effect. Now is the time when we must strenuously strive to repair the damages brought about by the competition of financial expansion, and must push ahead until we do for our patients all those things we know should be done and more than most of us have ever done before. We are grateful that Illinois is to be active in this program as in so many others.

Both inside and outside the hospitals we are all in debt to Illinois because your men have seized on one and another important practice, have developed and made it vivid and got us all to use it. The cottage system of hospital construction was developed at Kankakee. The use of the prolonged bath for lessening excitement was brought here from New York and expanded. Dr. Favill had the inspiration of making handwork available to many patients who could not be employed in hospital industry, out of which grew our occupational therapy. Physical education was drawn upon first, so far as I know, at the Chicago State Hospital for the benefit of many patients. The magnificent recreational programs of Jacksonville and Lincoln, perhaps due more to Dr. Drake and Dr. Waters than any other, were too tardily adopted in other states. Bringing psychiatry to the problems of children in a definite, organized fashion was done here by Healy and later by Adler and Schroeder. One of your hospital men, Dr. Clevenger, was the first to supply a laboratory to a young Swiss physician, Dr. Adolf Meyer, now the dean of American psychiatrists. These things we mention with gratitude.

This period of fiscal prosperity has taken away physicians who were doing out-patient work, and patients who do not need to be in a hospital but sorely needing help have not always been able to find it. Teaching of psychiatry in medical schools

has been done under a handicap. The hours have been too few and the pupils too many. These damages happily are being repaired faster than those in our hospitals. We hear that your teaching organizations are fast building up, and that your outpatient clinics and your private practices are expanding. In these fields, too, we must repair the damage done by the war period, and must go on to broader and better practice than ever before.

We thank Dr. Allen, Dr. Miller, and Dr. Irons for their cordial welcome, and the clergy who have asked the Almightly to sit in with us. Never was there a time when we more needed Superior wisdom than in this year 1946. We hope that many of our colleagues in other types of medical work will sit in our sessions and contribute from their experience and wisdom to our deliberations. Your agreeable sentiments, gentlemen, are deeply appreciated.

CHAIRMAN BOWMAN.—Thank you, Dr. Hamilton. I will now ask Bishop Randall to give the benediction.

THE RIGHT REV. EDWIN J. RANDALL.—Almighty God, Giver of all good things, grant us in our work to mankind that we may both receive and know the things which You want us to do, and grant us the grace and power to fulfill the same. In His name I give you that age-old benediction, The Lord bless you and keep you, the Lord make his face to shine upon you and be gracious unto you, the Lord lift his countenance unto you and give us peace both now and ever more. Amen.

CHAIRMAN BOWMAN.—We will have a short business session, before the scientific sessions.

We will now have the report of the Committee on Arrangements, Dr. Neymann.

DR. CLARENCE A. NEYMANN.—*Mr. President, members of the Association:* The Committee on Arrangements wishes to apologize to the Association, for everything will not be just as it should be. You must remember we have been in the throes of a railroad strike, and last Friday and Saturday, we were, "Off again, On again, Gone again, Finnegan," because we did not know how many of the members would be here. In the final analysis, some of our attempts to bring you fun and pleasure have been rather condensed.

Announcement of social affairs by Dr. Neymann.

CHAIRMAN BOWMAN.—Thank you, Dr. Neymann. I am sure that there are quite a few here who realize there was a railroad strike. I had several long distance calls from various members scattered over different parts of the country, who got part way here, and who wanted to be sure that the meeting was going on before they started to find ways of making the final lap. I am happy to say that most of those I have already seen in the audience.

As you know, this same railroad difficulty has imposed many difficulties on our scientific division of the program, because certain persons are unable to get here, and it will force changes which may have to be made at the last minute, and without previous warning.

I will now call on Dr. Malamud to give the report of the Program Committee.

DR. WILLIAM MALAMUD.—*Dr. Bowen, Ladies and Gentlemen:* Dr. Bowman has already told you that we have had a great deal of anxiety about whether we can have the program as it has been arranged. I still do not know just how many changes will have to be made.

There is one important help I would like to get from you, those who have to read papers should meet me as soon as possible after this session.

CHAIRMAN BOWMAN.—Thank you, Dr. Malamud. I will now call upon the Secretary-Treasurer for his report.

DR. WINFRED OVERHOLSER.—*Mr. President, Fellow Members and Guests:* It has been two years since this Association has met, and consequently the figures cover different periods from what they normally would.

There have been several changes in committees since our last meeting, including the creation of several new committees, and you will find the revised list of the members of the various committees in our program.

At the present time, including the group of members and Fellows who were elected a year ago, and who presumably will be confirmed by your vote Wednesday morning, our membership is as follows: Honorary, 19; Corresponding, 16; life members, 98; Fellows, 910; Members, 2211; Associate members, 379, a grand total of 3633, or a gain of 521 over April 1, 1944, not including a list of several hundred which will be proposed for election Wednesday morning.

The membership directory was not issued during the past year. Addresses were changing very rapidly with the return of our members from the services. The printing situation was extremely difficult, and it would have been so late in coming out, and would have been so relatively useless on account of the changes in address, that it was thought better to wait and get it out early this fall, probably by September, so we hope we shall have a directory for you within a few months.

Our income during the year was $30,582, and the expenditures $27,076, leaving a surplus for the year of $3456.

It may interest you to know that we have 5692 paid subscriptions to the JOURNAL—a very substantial number, I think you will agree, and it will also interest you to know that for almost the first time, the JOURNAL is actually making a slight profit instead of running at a loss.

The financial report will be given later on. It has not been gone over by the auditors of the Association.

There is one letter which I should like to read to the members, presenting one of the problems of the war. It was forwarded through the office of the President of the Philippines, and comes from

the Department of Agriculture and Commerce of the Commonwealth of the Philippines.

Letter read by Dr. Overholser.

On Wednesday morning, I shall report on the activities of the meetings of the Council which have been held up to that time during this meeting.

There will be a meeting of the Council in the Crystal Room on the floor below at 12 noon today. That will be a luncheon meeting.

I could not pass this opportunity without mentioning the extremely valuable and efficient service that has been rendered during the year by Mr. Austin Davies, Executive Assistant, and his assistants, Miss Rubenstein and Miss Borduk. It is due almost entirely to them that the affairs of the Association have rolled along with relatively little checking in the business office.

CHAIRMAN BOWMAN.—We come to the appointment of a committee on resolutions, and I will appoint on that committee Dr. John Whitehorn as Chairman, Dr. Glenn Myers and Dr. D. E. Cameron. We will ask that they meet and consider the preparation of their report at the end of the session.

We will now have the Memorial for the deceased members, and I will ask the Secretary to read the list, and ask that you stand in respect.

The list of deceased members was read by the Secretary, Dr. Overholser, and the assembly stood for a moment.

William A. Sim, Quincy, Ill., died Apr. 21, 1943.

Serge Androp, Talmage, Calif., died Nov. 8, 1943.

Gilbert V. Hamilton, Santa Barbara, Calif., died Dec. 16, 1943.

James L. McAuskan, N. Grafton, Mass., died Mar. 22, 1944.

Mark H. Wentworth, Concord, Mass., died May 15, 1944.

August E. Witzel, Newark, N. Y., died May 15, 1944.

George S. Adams, Yankton, S. D., died July 22, 1944.

Isaac J. Silverman, Washington, D. C., died Aug. 7, 1944.

Ned R. Smith, Tulsa, Okla., died Aug. 18, 1944.

Walter M. Kraus, New York, N. Y., died Aug. 17, 1944.

Henry M. Swift, Cape Cottage, Me., died Aug. 18, 1944.

James T. Arwine, Santa Rosa, Calif., died Aug. 24, 1944.

Samuel T. Armstrong, Katonah, N. Y., died Aug. 31, 1944.

Edward M. Steger, Dallas, Tex., died Sept. 1, 1944.

Wilbur M. Judd, Greystone Park, N. J., died Sept. 1, 1944.

Gustav Aschaffenburg, Baltimore, Md., died Sept. 2, 1944.

L. M. Rogers, Chillicothe, Ohio, died Sept. 7, 1944.

Edward Green, Harrisburg, Pa., died Sept. 30, 1944.

J. Moorhead Murdoch, Pittsburgh, Pa., died Oct. 10, 1944.

Harold E. Hoyt, Astoria, N. Y., died Oct. 12, 1944.

Frederick R. Sims, Forestdale, Mass., died Oct. 26, 1944.

William W. Wright, Utica, N. Y., died Oct. 28, 1944.

Graeme M. Hammond, New York, N. Y., died Oct. 30, 1944.

John McCampbell, Morganton, N. C., died Nov. 5, 1944.

William A. Bryan, Norwich, Conn., died Nov. 7, 1944.

H. Wilbur Smith, Worcester, Mass., died Nov. 25, 1944.

O. B. Darden, Richmond, Va., died Dec. 10, 1944.

* William H. Mathews, Rochester, N. Y., died Jan. 4, 1945.

William H. McCarty, Marion, Va., died Jan. 6, 1945.

Lloyd H. Ziegler, Wauwatosa, Wis., died Jan. 8, 1945.

George F. Roeling, New Orleans, La., died Jan. 12, 1945.

Byron M. Caples, Waukesha, Wis., died Jan. 18, 1945.

Bernard T. McGhie, Toronto, Canada, died Jan. 20, 1945.

Oscar H. Bleicher, Lawrence, Mass., died Jan. 23, 1945.

Henry C. Werner, Fond du Lac, Wis., died Feb. 7, 1945.

Merton O. Blakeslee, Lapeer, Wis., died Feb. 12, 1945.

Joseph Smith, Brooklyn, N. Y., died Feb. 26, 1945.

Henry I. Klopp, Allentown, Pa., died Mar. 7, 1945.

Rebekah Wright, Danvers, Mass., died Mar. 29, 1945.

Harry H. McClellan, Dayton, Ohio, died May 1, 1945.

Robert G. Stone, Atlanta, Ga., died May 4, 1945.

Arthur C. Delacroix, Basking Ridge, N. J., died May 7, 1945.

Walter C. Haviland, Mansfield Depot, Conn., died May 14, 1945.

Marvin A. McDowell, Logansport, Ind., died May 21, 1945.

George E. McPherson, Amherst, Mass., died June 16, 1945.

Beverly R. Tucker, Richmond, Va., died June 19, 1945.

Henry R. Craig, Eloise, Mich., died June 22, 1945.

Lewis A. Golden, New Orleans, La., died June 22, 1945.

William J. Hammond, Westwood, Mass., died July 4, 1945.

Alice E. Johnson, Philadelphia, Pa., died July 19, 1945.

* Killed in action.

Fletcher Van Meter, Talmage, Calif., died Aug. 4, 1945.

Glenn S. Weaver, Big Springs, Tex., died Sept. 5, 1945.

W. W. Young, Atlanta, Ga., died Sept. 7, 1945.

Elizabeth L. Martin, Blairstown, N. J., died Sept. 9, 1945.

Smith Ely Jelliffe, New York, N. Y., died Sept. 25, 1945.

H. H. Drysdale, Cleveland, Ohio, died Oct. 6, 1945.

Hugh Carter Henry, Richmond, Va., died Oct. 14, 1945.

Robert D. Gillespie, London, Eng., died Oct. 30, 1945.

Harold D. Palmer, Philadelphia, Pa., died Nov. 20, 1945.

Walton Tackett, E. Moline, Ill., died Dec. 14, 1945.

Emit L. McCafferty, Mt. Vernon, Ala., died Jan. 14, 1946.

Charles F. Read, Elgin, Ill., died Mar. 11, 1946.

CHAIRMAN BOWMAN.—This closes the business session. There will be an interval of five or ten minutes, at which time the section meeting will start. As soon as possible, we will carry out the program.

Meeting adjourned at 11 o'clock.

TUESDAY MORNING SESSION

MAY 28, 1946

The meeting was called to order by the President, Dr. Karl M. Bowman, at 9.30 a. m.

DR. BOWMAN.—The first order of business is the report of the Nominating Committee. Dr. Ruggles.

DR. RUGGLES.—The Nominating Committee presents the following report, as printed in the JOURNAL for January, 1945.

President: Dr. Samuel W. Hamilton.
President-elect: Dr. Winfred Overholser.
Secretary-treasurer: Dr. Leo H. Bartemeier.
Councillors for three years: Dr. Karl M. Bowman, Dr. Frederick H. Allen, Dr. Harry C. Solomon, Dr. A. E. Bennett.
Auditor for three years: Dr. George H. Preston.

Respectfully submitted,
R. E. BUSHONG,
KARL A. MENNINGER,
THEODORE A. WATTERS,
GREGORY ZILBOORG,
ARTHUR H. RUGGLES, *Chairman.*

DR. BOWMAN.—You have heard the report. Are there further nominations?

DR. M. R. KAUFMAN.—I wish to make another nomination for the Council. I am certain that many of us have felt that perhaps we were guilty of not being very active in the business administration of the Association, and this nomination or series of nominations that will be made has nothing whatsoever to do with the individuals who have been nominated. Some of them are my best friends, and I would hate to see them elected or hope they will not be. Now that I have made the situation moderately clear, I should like to make a nomination for the Council of a gentleman who is well known to all of you, both civilian and military—I nominate General William C. Menninger.

DR. BOWMAN.—Are there other nominations?

DR. MARION KENWORTHY.—I nominate Dr. T. A. C. Rennie for Councilor.

DR. O. SPURGEON ENGLISH.—I nominate Dr. Kenneth Appel for Councilor.

DR. BOWMAN.—Are there further nominations? I hear none, and declare the nominations closed. The Chair will entertain a motion to adopt the report of the Nominating Committee so far as it concerns those names over which there is no contest.

So moved by Dr. Kaufman, seconded by Dr. J. D. Campbell.

DR. HAMILTON.—The retiring President becomes automatically a member of the Council; his name is not in contest.

DR. BOWMAN.—My election seems to be assured. Those in favor will please say aye, those opposed no. The ayes have it, and I declare Drs. Hamilton, Overholser, Bartemeier, Bowman and Preston elected as nominated.

We now proceed to vote for three Councilors. I will call your attention to the fact that only Fellows and Members are entitled to vote, in accordance with Article Five of the Constitution. Those whose election as Member is pending are not entitled to vote, as we have not formally voted on their names yet. We shall, therefore, use the last official printed list of Fellows and Members for the guidance of the tellers. I will ask the following to serve as tellers: Drs. George Elliott, E. A. Strecker, S. B. Wortis, John Whitehorn. The tellers will pass out blank papers, and I will ask that you vote for any three of the six individuals nominated for Councillor, coming forward to deposit your ballot. I will rule that the three individuals receiving the highest vote will be declared elected. The Nominating Committee has nominated Drs. Allen, Bennett and Solomon; from the floor, Drs. K. Appel, W. C. Menninger and Rennie have been nominated.

The balloting then proceeded.

DR. BOWMAN.—The balloting is now closed, and the tellers will count the ballots. Dr. Overholser has one or two announcements to make.

DR. OVERHOLSER.—*Ladies and Gentlemen,* may I call your attention to the fact that the Councilors enter upon their duties immediately after their election. The President, President-elect, Secretary-treasurer enter upon theirs at the close of the Annual Meeting. Council will meet at 5 o'clock

today in the Crystal Room on the floor below. Dr. Ackerly, Chairman of the Membership Committee has an amendment to the Constitution for your information. It will be posted in writing at the Registration Desk, and will be published in the JOURNAL at least 60 days before the next Annual Meeting. This is the proposed change in regard to members: Article 3, Section 5—"Members hereafter shall be chosen from physicians who have specialized in the practice of psychiatry for at least 3 years and have fulfilled the requirements for Associate Membership. Members shall be chosen to Fellowship as it becomes apparent they deserve this recognition." Section 6 to read as follows: "Associate Physicians shall be physicians who have at least one year's practice in a mental hospital or its equivalent."

DR. BOWMAN.—As soon as the vote is announced, the section will start in this hall. Also, may I remind the newly elected members of Council that they are to appear in the next Council meeting and that they take office at that time. The tellers inform me that 192 votes were cast, and that a majority were cast for the following: Drs. Appel, Menninger and Rennie. I therefore declare them elected as Councilors for a term of three years.

WEDNESDAY MORNING SESSION

MAY 29, 1946

The One Hundred and Second Annual Meeting of The American Psychiatric Association convened at nine forty-five o'clock in the Grand Ballroom of the Palmer House, Chicago, Illinois. Karl M. Bowman, M. D., President, presiding.

PRESIDENT BOWMAN.—The first item of business is the election of members. You will all find a mimeographed sheet before you which has on it the list of members. This list was approved by the Council last night. There should also be a vote of approval for the list of names which was published in the JOURNAL and which the members were all asked to confirm. You will remember that a year ago, we were unable to have a meeting. The Membership Committee reported a list of new members. The only way that we could deal with this situation was by publishing the list and asking if there were any objections to these members and asking the members to write us if they had such objection. There has been no objection to any member on that list. We notified everyone on the list that they were tentatively admitted to the Association and we put them on the subscription list for the JOURNAL and we billed them for the regular dues, so that their membership would be retroactive to a year ago.

The Council, also at its meeting last night, approved two names which are not on the list, Dr. Mogens Elberman of Copenhagen as a corresponding member and Surgeon-General Thomas Parran as an Honorary member. Does anyone wish to make a motion with regard to the list and the names that I have mentioned.

The motion was made and seconded to approve the list of members with the two additional names.

ASSOCIATE MEBERSHIP, MAY 1946

Abrahams, Joseph, 2810 Foster Ave., Brooklyn, N. Y.
Bassan, Morton E., Winter Gen. Hosp., Topeka, Kan.
Bellak, Leopold, St. Elizabeths Hospital, Washington, D. C.
Berger, Irving L., Henry Phipps Clinic, Baltimore, Md.
Bill, Robert O., 1938 N. Talbot Ave., Indianapolis, Ind.
Blaustein, Milton J., 1915 78th St., Brooklyn, N. Y.
Bleiweiss, Irwin M., Capt., M.C., 100 Bennett Ave., New York, N. Y.
Boyd, Clarence E., Capt., M.C., Box 8 Regional Hospital, Ft. Knox, Ky.
Brunner, Richard A., Butler Hosp., Providence, R. I.
Carone, Pasquale A., 538 Lafayette Ave., Brooklyn, N. Y.
Church, Athol C., 2 Surrey Place, Toronto, Ont., Canada.
Coates, Thomas F., Jr., 932 Park Ave., Richmond, Va.
Coltharp, Ralph W., Lt., M.C., U. S. P. H. S. Hospital, Fort Worth, Tex.
Coodley, Alfred E., Capt., M.C., 3869 W. 8th St., Los Angeles, Calif.
Dorr, Thomas O., Winter Gen. Hosp., Topeka, Kan.
Doubrava, Joseph F., Cleveland State Hospital, Cleveland, Ohio.
Dribben, Irving S., Capt., M.C., Regional Hosp. No. 2, Ft. Bragg, N. C.
Eastman, Charles W., Maj., M.C., 15 Millett St., Livermore Falls, Maine.
Feinberg, Philip, Winter Gen. Hosp., Topeka, Kan.
Frank, Frederick W., 3340 Clay St., San Francisco, Cal.
Frankel, Kalman, Capt., M.C., Bushnell General Hospital, Brigham City, Utah.
Friedlander, Joseph W., 3269 W. Maypole Ave., Chicago, Ill.
Galvin, James A. V., 5 King St., Waterford, N. Y.
Garber, Miles D., Jr., Winter Gen. Hosp., Topeka, Kan.
Garvin, William J., 1st Lt., M.C., Moore General Hospital, Swannanoa, N. C.
Gerchick, Elias H., 225 W. 86th St., New York, N. Y.
Gilbert, Freeman J., Capt., M.C., N. D. Baker General Hospital, Martinsburg, W. Va.
Goforth, Eugene G., 905 S. Main St., Bloomington, Ill.
Goodman, Nelson, Regional Hospital, Ft. Warren, Wyo.
Gosliner, Bertram J., Bellevue Hospital, New York, N. Y.

Graves, Max D., State Hospital, Cherokee, Iowa.
Hamilton, James A., Capt., M.C., Regional Hospital, Ft. Belvoir, Va.
Hammerman, Steven, Capt., M.C., 251 S. 46th St., Philadelphia, Pa.
Harper, Thomas S., U. S. Naval Hospital, Norman, Okla.
Headlee, Charles R., Regional Station Hospital, Ft. Belvoir, Va.
Holt, Herbert, 403 West 46th St., New York, N. Y.
Horrocks, Jack B., Separation Center 49, Camp Grant, Ill.
Huvelle, Camille H., 1st Lt., M.C., Percy Jones Gen. Hospital, Battle Creek, Mich.
Joseph, Edward D., Veterans Admin. Hospital, Bedford, Mass.
Joseph, Harry, 179 81st St., Brooklyn, N. Y.
Joseph, Monte L., Ontario Hospital, Whitby, Ont., Canada.
Kartus, Irving, 2045 White St., Alexandria, La.
Kennison, Warren S., 4214 King St., Denver, Colo.
Kenyon, Jack M., Toronto Psychiatric Hospital, Toronto, Ont., Canada.
Kerman, Willard Z., Percy Jones Hospital Center, Camp Custer, Mich.
Kessler, Franklin L., 1101 Main St., Peekskill, N. Y.
Kowert, Edward H., Capt., M.C., Bushnell General Hospital, Brigham, Utah.
Lawrence, Homer E., Capt., M.C., Mason General Hospital, Brentwood, L. I., N. Y.
Leander, Richard B., U.S.N., U. S. Public Health Service, Ft. Worth, Tex.
Lerner, Samuel H., Fitzsimmons General Hospital, Denver, Colo.
Leuzzi, Anthony P., Capt., M.C., 434 Park Hill Ave., Yonkers, N. Y.
Levine, Lena, 15 West 11th St., New York, N. Y.
Little, Paul F., 5674 York Blvd., Los Angeles, Calif.
Ludin, Albert P., 1st Lt., M.C., Veterans Admin. Hospital, Minneapolis, Minn.
Maker, Louis E., Topeka State Hospital, Topeka, Kan.
Mancusi-Ungaro, Harold R., Capt., M.C., 25 Oakland Terrace, Newark, N. J.
Marcus, Irwin M., Capt., M.C., Beaumont General Hospital, El Paso, Tex.
Mayer, Stephan K., Veterans Admin. Hospital, Northampton, Mass.
McDevitt, John B., Capt., M.C., Station Hospital, Ft. Leonard Wood, Mo.
Mercurio, Pasqual J., 117 Avenue U, Brooklyn, N. Y.
Merker, Frank F., 4207 Smithdeal Ave., Richmond, Va.
Mihelich, Lewis, Naval Air Station, St. Louis, Mo.
Moses, Edward, 632 Main St., Malden, Mass.
Murphy, Thomas W., U. S. Naval Hospital, Portsmouth, Va.
Need, Louis T., U. S. Naval Hospital, Newport, R. I.
O'Brien, William R., Fitzsimmons General Hospital, Denver, Colo.
O'Donnell, John W., U. S. P. H. S. Hospital, Ft. Worth, Tex.
Oppenheimer, Hans, 245 Fort Washington Ave., New York, N. Y.
Palmer, Harris H., 1st Lt., M.C., Brooke General Hospital, Ft. Sam Houston, Tex.
Pestillo, Mario P., Syracuse Memorial Hospital, Syracuse, N. Y.
Pleiss, Philip H., 1st Lt., M.C., Camp Upton, L. I., N. Y.
Pinsky, Abe, 883 Park Place, Brooklyn, N. Y.
Poniatowski, Jerome F., 3052 Cheltenham Place, Chicago 49, Ill.
Prugh, Dane G., Capt., M. C., ASF Convalescent Hospital, Camp Upton, N. Y.
Quinn, Philip, 1st Lt., M.C., 310th General Hospital, Camp Blanding, Fla.
Raisbeck, Alden, 111 Park Ave., New York, N. Y.
Rasor, Robert W., National Training School for Boys, Washington 18, D. C.
Renneker, Richard E., University of Chicago Clinics, Chicago, Ill.
Robinson, Joseph, 1st Lt., M.C., Wakeman General Hospital, Camp Atterbury, Ind.
Rosen, John R., 875 Fifth Ave., New York, N. Y.
Sarnoff, Irving, 17 State St., Ossining, N. Y.
Schneer, Henry I., Capt., M. C., Regional Hospital, Camp Polk, La.
Schwartz, Abraham, 1st Lt., M.C., c/o Mrs. Constantini, 140 Riverside Dr., New York, N. Y.
Shiell, Jerome A., Bellevue Psychiatric Hospital, New York 16, N. Y.
Shurley, Jay T., 111 North 49th St., Philadelphia, Pa.
Skolnick, Alec, McCloskey General Hospital, Temple, Tex.
Smith, Howard B., 6637 Blakemore St., Philadelphia, Pa.
Vetter, John J., 341 East 34th St., New York, N. Y.
Wagenheim, Harry H., 1401 N. Spring St., Pensacola, Fla.
Wermuth, William C., 111 North 49th St., Philadelphia, Pa.
Wessel, Morris A., Capt., M.C., 722 Williams St., New London, Conn.
Wilson, Earle E., Capt., M.C., 814 S. Maple Ave., Oak Park, Ill.

(92)

Reinstatement as an Associate Member, May 1946

Caprio, Frank S., Columbia Medical Bldg., Washington, D. C.
Hill, Owen L., 915 South Cincinnati, Tulsa, Okla.
Woodruff, Paden E., Veterans Admin. Hospital, Marion, Ind.

(3)

Membership, May 1946

Abbott, John A., 29 Commonwealth Ave., Boston, Mass.
Adamson, Gilbert L., The Western Trust Co., Winnipeg, Canada.
Aldendorff, Herbert, 320 West End Ave., New York 23, N. Y.

Allan, Blandford M. E., 48 Rowanwood Ave., Toronto 5, Ont., Canada.
Anderson, Samuel E., Milledgeville State Hospital, Milledgeville, Ga.
Argent, Albert H., Veterans Admin. Facility, Marion, Ind.
Aronson, Abraham, 3341 W. Douglas Blvd., Chicago 2, Ill.
Ascher, Abraham H., 125 Lenox Road, Brooklyn, N. Y.
Ball, Erna D., 157 West 79th St., New York, N. Y.
Beck, Charles, 2065 Grand Concourse, Bronx, N. Y.
Bell, John P., 1814 Hopper Court, Hopkinsville, Ky.
Benbow, John T., Florida State Hospital, Chattahoochee, Fla.
Bennett, Robert E., New Jersey State Hospital, Trenton, N. J.
Beshara, Edmund, Massillon State Hospital, Massillon, Ohio.
Biancarelli, Edward J., 405½ Third Ave., Jessup, Pa.
Binder, Morris, V. A. H., Roanoke, Va.
Bird, Brian, 111 St. George St., Toronto, Ont., Canada.
Blair, James P., Jr., Psychiatric Hosp., Galveston, Tex.
Blass, Gustaf, Stamford Hall, Stamford, Conn.
Bleckwenn, William J., Sr., 3441 Crestwood Dr., Madison, Wisc.
Bogner, Inge A., 27 West 86th St., New York, N. Y.
Bourkard, Ernest R., Institute of Living, Hartford, Conn.
Bowser, Lawrence P., Walter E. Fernald State School, Waverly, Mass.
Brain, R. Gordon, 509 National Bldg., Flint, Mich.
Brawner, James N., Jr., Brawner's Sanitarium, Smyrna, Ga.
Brener, Zidella S., 1215 Walker St., Houston, Tex.
Brenner, Jacob, 8 Oliver St., N. Boston, Mass.
Breslin, Reuben H., 107 First Ave., N. W., Mandan, N. Dak.
Briden, Vayle S., Lt. Comdr., M.C., U. S. Naval TAD Center, Camp Elliott, San Diego, Calif.
Brown, William, 206 W. 13th St., New York, N. Y.
Brown, Dewitt W., Logansport State Hospital, Logansport, Ind.
Broggi, Frank S., Lt. Comdr., M.C., U. S. Naval Hospital, Astoria, Ore.
Brodman, Keeve, 145 East 49th St., New York, N. Y.
Buckman, Charles, Capt., M.C., A.G.S.F. Redistribution Station, Santa Barbara, Calif.
Burdick, Charles H., Veterans Admin. Facility, Minneapolis, Minn.
Caunt, Thomas G. B., Provincial Mental Hospital, Essondale, B. C., Canada.
Chambers, Rawley E., Fitzsimmons General Hospital, Denver, Colo.
Chandler, Arthur L., 2240 Cahuenga Blvd., Hollywood, Cal.
Chaplin, Michael, 40 Washington Square S., New York, N. Y.
Chelnek, Irving, V.A.H., Mendota, Wis.
Chisholm, G. Brock, World Health Organization, 2 East 103rd St., New York 29, N. Y.
Clark, R. Stanley, V.A.H., Los Angeles, Cal.
Cook, Frederick M., Veterans Admin. Facility, Wadsworth, Kans.
Crevello, Albert J., 6302 Sherwood Rd., Phila. 31, Pa.
Critchfield, Charles L., Orient State School, Orient, Ohio.
Crowley, Francis L., Patton State Hospital, Patton, Calif.
Danziger, Lewis, Milwaukee Sanitarium, Wauwatosa, Wisc.
Davidson, Allen E., Provincial Hospital, Essondale, B. C., Canada.
Davis, Kathleen O'Brien, 133 East 58th St., New York, N. Y.
Davis, Ralph E., Veterans Admin. Facility, Boise, Idaho.
Dean, Stanley R., 322 Main St., Stamford, Conn.
Demuth, Edwin L., 5 Old Mamaroneck Rd., White Plains, N. Y.
Dengrove, Edward, 314 Grassmere Ave., Interlaken, N. J.
Depner, Rudolph J., Laconia State School, Laconia, N. H.
Deutsch, Albert L., Capt., M.C., 130 Lenox Road, Brooklyn, N. Y.
Dieter, William J., Central State Hospital, Indianapolis, Ind.
Dillon, Lowell O., Lima State Hospital, Lima, Ohio.
Draper, Russell T., Induction Center, Ft. Benning, Ga.
Drobnes, Sidney, 71 Main St., Norwich, Conn.
Due, Floyd O., Lt., M.C., 1419 Grand St., Alemeda, Calif.
Duncan, Herbert A., Las Encinas Sanitarium, Pasadena, Calif.
Ells, Elizabeth S., Allentown State Hospital, Allentown, Pa.
Epstein, Samuel I., Bangor State Hospital, Bangor, Maine.
Everts, William H., 421 Huguenot St., New Rochelle, N. Y.
Fabing, Howard D. J., Veterans Administration, Washington, D. C.
Faguet, Benjamin B., Capt., M.C., 378 Golden Gate Ave., San Francisco, Calif.
Fergus, Andrew, Lt., M.C., 4 Mendelssohn St., Binghamton, N. Y.
Ferris, Charles, Sheppard & Enoch Pratt Hospital, Towson 4, Md.
Fisher, Albert M., State Hospital, Jamestown, N. Dak.
Fogel, Ernest J., Harrisburg State Hospital, Harrisburg, Pa.
Ford, Harold V., Veterans Admin. Hospital, Wadsworth, Kans.
Fox, Thomas H., Veterans Admin. Hospital, Ft. Meade, S. Dak.
Frazier, Robert L., Orient State School, Orient, Ohio.
Friedman, M. D., 7016 Euclid Ave., Cleveland, Ohio.

Friedman, Paul, 20 Fifth Ave., New York, N. Y.
Fromm, Rose, 907 S. Wolcott St., Chicago, Ill.
Gallinek, Alfred, 1165 Fifth Ave., New York, N. Y.
Gansloser, Wilbert M., 3963 Floral Pl., St. Louis 10, Mo.
Gaskill, Herbert S., 111 North 49th St., Philadelphia, Pa.
Gendel, Edward, Pilgrim State Hospital, Brentwood, L. I., N. Y.
Gerhart, Lewis W., Capt., M.C., Bruns General Hospital, Santa Fe, New Mexico.
Goldbach, Martin M., Marcy State Hospital, Marcy, N. Y.
Goldberg, Bernard R., 31 Lincoln Park, Newark, N. J.
Gorfinkel, Arthur, Harlem Valley State Hospital, Wingdale, N. Y.
Gorton, Manfred L., 669 Elizabeth Ave., Newark, N. J.
Gove, Roger M., Capt., M.C., A. A. A. Regional Hospital, Drew Field, Fla.
Grant, Harry, Veterans Admin. Hospital, Lexington, Ky.
Green, Isadore, 636 Beacon St., Boston, Mass.
Greenhall, Armand L., Maj., M.C., 1125 Park Ave., New York, N. Y.
Grinstein, Alexander, 904 Kales Bldg., Detroit, Mich.
Gruenthal, Max, 25 West 81st St., New York, N. Y.
Haertig, Elmer W., Capt., M.C., Station Hospital, A. A. B., Stockton, Calif.
Hale, Frank A., 1st Lt., M.C., General Dispensary, 39 Whitehall St., New York, N. Y.
Hargreaves, Robert P., Corozal Hospital, Diablo Hts., Corozal, C. Z.
Harris, Joseph H., Comdr., M.C., 325 Serrano Dr., San Francisco, Calif.
Harts, Jerome, 11 E. Chase St., Baltimore, Md.
Harty, John E., 101 N. Main St., Waterbury, Conn.
Hause, Edward E., 450 Sutter St., San Francisco, Calif.
Head, John J., Lt. Comdr., M.C., U. S. Naval Hospital, San Leandro, Calif.
Hellams, Alfred A., Elgin State Hospital, Elgin, Ill.
Henderson, Joseph L., 450 Sutter St., San Francisco, Calif.
Herman, Louis, Capt., M.C., Veterans Admin. Hospital, Camp Custer, Mich.
Herschfield, Alexander H., Percy Jones General Hospital, Camp Custer, Mich.
Horst, Elmer L., Veterans Admin. Hospital, Coatesville, Pa.
Howard, Cluese L., Capt., M.C., Finney General Hospital, Thomasville, Ga.
Howell, Ira L., 400 San Juan, Alamosa, Calif.
Howser, John P., State Hospital, Big Springs, Tex.
Hughes, John E., 210 East 68th St., New York, N. Y.
Hurianek, Zdenka A., 4115 N. 10th St., Phoenix, Ariz.
Hurley, James R., U. S. P. H. S., Medical Center, Springfield, Mo.
Hutchins, William J., 555 Park Ave., New York, N. Y.
Imhoff, William H. M., 7851 Michener St., Philadelphia, Pa.
Imwood, Eugene R., Mason General Hospital, Brentwood, L. I., N. Y.
Jacobs, James S. L., 1300 University, Madison, Wisc.
Jaffe, Edwin, 127 East 81st St., New York, N. Y.
Jenkins, George E., 40 Craig St., Ottawa, Ont., Canada.
Johnson, Carrol A., Jr., Napa State Hospital, Imola, Calif.
Johnson, Leslie A., Norfolk State Hospital, Norfolk, Va.
Jones, Ernest F., Veterans Admin. Hospital, Marion, Ind.
Jump, Clarence E., Veterans Admin. Hospital, Togue, Maine.
Kojinsky, Esther E., State Hospital, Massillon, Ohio.
Karliner, William, 480 Park Ave., New York, N. Y.
Karpe, Richard, 801 Farmington Ave., Hartford, Conn.
Kasey, Arthur R., Jr., 705 Francis Bldg., Louisville, Ky.
Kingma, John G., Christian Sanatorium, Wyckoff, N. J.
Kippen, Ablon A., Warren State Hospital, Warren, Pa.
Kirschenbaum, David, Norwich State Hospital, Norwich, Conn.
Klauber, Bernard S., Capt., M.C., Kennedy General Hospital, Memphis, Tenn.
Knapp, Peter H., Capt., M.C., Deshon General Hospital, Butler, Pa.
Knox, Stuart C., Lt., M.C., 2720 Glendower Ave., Los Angeles, Calif.
Kolb, Lawrence C., U. S. Naval Hospital, Bethesda, Md.
Kransz, Erwin O., 30 N. Michigan Ave., Chicago, Ill.
Kuitert, John H., Maj., M.C., Veterans Admin. Hospital, St. Cloud, Minn.
Kurth, Clarence J., 608 Brown Bldg., Wichita, Kans.
Landman, Louis, Veterans Admin. Hospital, Bronx, N. Y.
Larrabee, Herbert M., 9 Central St., Lowell, Mass.
Law, Stanley G., Capt., M.C., Naperville, Ill.
Lawson, Frederick S., Lorne Park, Toronto, Ont., Canada.
Lee, William, 447 West Side Ave., Jersey City, N. J.
Levine, Harold N., Veterans Admin. Hospital, Roanoke, Va.
Lewis, C. Vaughan, Hudson River State Hospital, Poughkeepsie, N. Y.
Lipscomb, William N., 39 Montello Park, Lexington, Ky.
Loignon, Gaston, 2910 Maplewood Ave., Montreal, Que., Canada.
Lubin, Albert J., Stanford University Hospital, San Francisco, Calif.

Luwisch, Joachim, 3 East 74th St., New York, N. Y.
Lyon, John M., Colorado General Hospital, Denver, Colo.
Malinash, Louis, 722 West 168th St., New York, N. Y.
Malinoski, Mitchell V., Veterans Admin. Hospital, Perry Point, Md.
Maniscaleo, Anthony E., Veterans Admin. Hospital, Ft. Custer, Mich.
Marinacci, Alberto A., Capt., M.C., Veterans Admin. Hospital, Waco, Tex.
McDaniel, Thomas W., Jr., Capt., M.C., USPHS Hospital, Ft. Worth, Texas.
McElroy, Joseph D., St. Elizabeths Hosp., Washington, D. C.
Merrill, Bruce R., 1344 Midland Ave., Bronxville, N. Y.
Meyers, S. Benjamin, U. S. Naval Hospital, Unit No. 4, San Diego, Calif.
Miller, James G., Veterans Administration, Box 2605, Washington, D. C.
Miller, Robert E., USPHS Hospital, Lexington, Ky.
Miracolo, Charles C., Veterans Admin. Hospital, Augusta, Ga.
Moir, Hugh E., 576 Harvie Ave., Toronto, Ont., Canada.
Moore, Donald F., State Hospital, Ypsilanti, Mich.
Morgan, Jack A., 2415 Michigan Ave., Chicago, Ill.
Murray, Foster S., 555 Eastlake Ave., Sask., Canada.
Naclerio, Amedeo C., New Jersey State Hospital, Greystone Park, N. J.
Nathan, Werner, 471 Park Ave., New York 22, N. Y.
Needleman, Max, 1809 Albemarle Rd., Brooklyn, N. Y.
Nelson, Oscar L., Veterans Admin. Hospital, Minneapolis, Minn.
Novak, Russell C., Provincial Mental Hospital, Essondale, B. C., Canada.
Novey, Samuel, 114 Medical Arts Bldg., Baltimore, Md.
Odenwald, Robert P., 53 Park Place, Suffern, N. Y.
O'Gorman, William D., 124 W. Norwood Court, San Antonio, Tex.
Olsen, Albert L., Veterans Admin. Hospital, Ft. Custer, Mich.
O'Malley, Andrew W., Clarks Summit State Hospital, Clarks Summit, Pa.
Orr, Eli H., Veterans Admin. Hospital, Camp Custer, Mich.
Pacella, Emilio R., Pilgrim State Hospital, Brentwood, L. I., N. Y.
Paine, Emory M., State Hospital, Traverse City, Mich.
Painter, Thomas E., Westbrook Sanitarium, Richmond, Va.
Palmer, Dwight M., 463 E. Town St., Columbus, Ohio.
Palmer, John C., Maj., M.C., Hq. A. G. F., R. D. No. 1, Camp Pickett, Va.
Panet-Raymond, Jean, 64 Nelson Ave., Outremont 8, Canada.
Peak, Ira F., 406 Medical Arts Bldg., Greenville, Tex.
Peck, Robert E., 722 Doctor's Bldg., Atlanta, Ga.
Pellens, Mildred, 1278 E. Main St., Bridgeport, Conn.
Petritzer, Bedel K., 307 East 10th St., New York, N. Y.
Philbrock, Anna L., 108 Pleasant St., Concord, N. H.
Pike, William W., Rockland State Hospital, Orangeburg, N. Y.
Pillersdorf, Louis, Osborn Bldg., Cleveland, Ohio.
Pilon, Alcide, 3816 Parc La Fontaine, Montreal, Que., Canada.
Place, Beneni A., Montana State Hospital, Warm Springs, Mont.
Polan, Charles G., 1125 Medical Arts Bldg., Seattle, Wash.
Policoff, Leonard D., Capt., M.C., Mason General Hospital, Brentwood, L. I., N. Y.
Pollock, Samuel L., 730 Prospect St., Maplewood, N. J.
Posey, Henry T., Capt., M.C., Base Hospital, Morrison Field, W. Palm Beach, Fla.
Post, Edwards S., Veterans Admin. Hospital, Marion, Ind.
Prager, Helmut, Springfield State Hospital, Sykesville, Md.
Priest, Eda L., 130 East 39th St., New York, N. Y.
Pringle, John A., Veterans Admin. Hospital, St. Cloud, Minn.
Ranson, Stephen W., Capt., M.C., 6001 Winthrop Ave., Chicago, Ill.
Raphael, Chester M., New Jersey State Hospital, Marlboro, N. J.
Reese, William G., Capt., M.C., 428 Themis St., Cape Girardeau, Mo.
Ralph, Isabella S. R., Ontario Hospital, Brockville, Ont., Canada.
Revitch, Eugene, Capt., M.C., U. S. Discip. Barracks, Ft. Missoula, Mont.
Rian, Irville S., Mt. Vernon State Hospital, Mt. Vernon, Ohio.
Ribner, Harold, 928 Lafayette St., Bridgeport, Conn.
Risser, Mark G., Allentown State Hospital, Allentown, Pa.
Roadruck, Roscoe D., Capt., M.C., Veterans Admin. Hospital, Batavia, N. Y.
Roberts, George R., Ohio Hospital for Epileptics, Gallipolis, Ohio.
Roberts, Howard E., Capt., M.C., 701 Fillmore St., Topeka, Kans.
Roley, Willard C., Capt., M.C., Station Hospital, A. A. F., Venice, Fla.
Rosenthal, Morris M., 3831 Keystone Ave., Chicago, Ill.
Rossman, William B., 603 Atlas Blldg., Charleston, W. Va.
Roudenbush, Marion E., 105 S. 11th St., Noblesville, Ind.
Rucker, Norman H., Capt., M.C., Regional Hospital, Camp Swift, Tex.
Runkle, Stuart C., 278 Wistar Rd., Oakland, Calif.
Rushton, Joseph G., Mayo Clinic, Rochester, Minn.

Salan, Irving, Rockland State Hospital, Orangeburg, N. Y.
Sarlin, Charles N., 123 S. Stone Ave., Tucson, Ariz.
Schaffer, Dora, 114 East 54th St., New York, N. Y.
Schegloff, Ber M., Judge Baker Foundation, 38 Beacon St., Boston, Mass.
Schmidt, Edward C., Mayo Clinic, Rochester, Minn.
Schneider, Wilmont F., 2275 Woodmere Drive, Cleveland Heights, Ohio.
Schneidman, Louis, Capt., M.C., Station Hospital, Ft. Oglethorpe, Ga.
Schroeder-Sloman, Sophie W., 907 S. Wolcott Ave., Chicago, Ill.
Seeley, Leslie J., State Hospital, Norwalk, Calif.
Segal, Lester, Hudson River State Hospital, Poughkeepsie, N. Y.
Segenreich, Harry M., 225 Sheridan Rd., Winnetka, Ill.
Selby, Nathaniel E., 133 East 58th St., New York 22, N. Y.
Senfels, Sidney, Brooklyn State Hospital, Brooklyn, N. Y.
Sewall, Leo G., Veterans Admin. Hospital, Lyons, N. J.
Shea, James E., 550 Park Ave., New York, N. Y.
Shelley, Mildred H., Institute of Living, Hartford, Conn.
Shelton, Henry Z., 1st Lt., M.C., Station Hospital, Ft. Lawton, Wash.
Shields, Marshall F., 11 Country Club Sanitarium, Wallingford, Pa.
Silbermann, Isidor, 29 West 96th St., New York, N. Y.
Silbermann, Maximilian, 893 Park Ave., New York, N. Y.
Simson, Clyde B., 217 Pratt St., Kalamazoo, Mich.
Sitter, Stephen C., Vaughan General Hospital, Hines, Ill.
Slaff, Florence, 18 W. 70th St., New York, N. Y.
Smith, Gerald W., Capt., M.C., U. S. Naval Hospital, Mare Island, Calif.
Smith, Milton P., Tiffin State Hospital, Tiffin, Ohio.
Southard, Curtis G., U. S. P. H. S. Hospital, Ft. Worth, Tex.
Spivak, Louis J., 416 Medical Arts Bldg., Houston, Tex.
Sprague, David W., City Hospital, 3395 Scranton Rd., Cleveland, Ohio.
Steckler, Philip P., Veterans Admin. Hospital, Perry Point, Md.
Stein, Martin H., 1212 Fifth Ave., New York, N. Y.
Stell, Barnard S., 315 Woodbridge Ave., Buffalo, N. Y.
Stern, Morton M., 24 Girard Pl., Newark 8, N. J.
Sternback, Abraham, 2070 Grand Concourse, Bronx, N. Y.
Stevens, Rutherford B., 2821 12th St., N. E., Washington, D. C.
Stewart, Robert J., 4036 East 18th Ave., Denver, Colo.
Stratton, Henry G., 48 Elmwood Ave., London, Ont., Canada.
Strauss, Erwin W., Henry Phipps Clinic, Baltimore, Md.
Sult, Charles W., Jr., 710 Professional Bldg., Phoenix, Ariz.
Sutch, Gabriel C., State Hospital for Mental Diseases, Howard, R. I.
Sutherland, George F., Crile General Hospital, Cleveland 9, Ohio.
Taylor, Lois E., Belchertown State School, Belchertown, Mass.
Teitelbaum, Harry A., 1801 Eutaw Place, Baltimore, Md.
Teitelbaum, Irving, 4309 57th Ave., Long Island City, N. Y.
Thomas, Preston W., Mayview State Hospital, Mayview, Pa.
Tice, William A., Lt., M.C., 1104 Cumberland Rd., Jacksonville, Fla.
Tock, Elizabeth W., Stockton State Hospital, Stockton, Calif.
Toy, Charles M., Norwich State Hospital, Norwich, Conn.
Trapp, Fritz C., Gowanda State Homeopathic Hospital, Helmuth, N. Y.
Tucker, Hyman, Norwalk State Hospital, Norwalk, Calif.
Unger, Arthur A., Milwaukee Co. Hospital for Mental Diseases, Wauwatosa, Wisc.
Vallee, Clarence A., Willard State Hospital, Willard, N. Y.
Villara, Joseph J., U. S. P. H. S., Lexington, Ky.
Wade, Chester, 1111 N. Astor St., Milwaukee, Wisc.
Wall, David R., 640 S. Kingshighway, St. Louis, Mo.
Wanner, Albert L., 58 Sixteenth St., Wheeling, W. Va.
Wassell, Benjamin, 60 N. Arbington Ave., East Orange, N. J.
Weickhardt, George D., St. Elizabeths Hospital, Washington, D. C.
Weisman, Avery D., 829 Beacon St., Boston, Mass.
Weissman, Max, 262 Central Park West, New York, N. Y.
Wetzler, Robert A., Mendovi, Washington.
Wheeler, David H., Michael Reese Hospital, Chicago, Ill.
Whitsell, Leon J., 2423 29th Ave., San Francisco, Calif.
Whitworth, James N., Turney Road, Cleveland, Ohio.
Wiesel, Carl, 306 Citizens Bank Bldg., Lexington, Ky.
Wigton, Robert S., 1436 Medical Arts Bldg., Omaha, Nebr.
Wilder, Joseph, 1211 Madison Ave., New York 28, N. Y.
Wilkin, Mabel G., 9 Pee Road, Woodhaven, Bethesda, Md.
Willner, Herman, Capt., M.C., c/o Dr. F. S. Willner, State Hospital, Central Islip, N. Y.
Wiren, Lennard W., 960 Fisher Bldg., Detroit 2, Mich.
Woods, Lon C., Veterans Admin. Hospital, Knoxville, Ia.
Worthington, Richard V., 357 Union Ave., Framingham, Mass.

Wright, David G., 305 Blackstone Blvd., Providence, R. I.
Wright, Leonard D., 194 Lake Drive, Ripley, Tenn.
Yessin, George, 243 Riverside Drive, New York, N. Y.
Young, Nicholas, Manhattan State Hospital, Wards Island, N. Y.
Zaphiropoulos, Miltiades L., Rockland State Hospital, Orangeburg, N. Y.

(299)

REINSTATEMENT AS A MEMBER, MAY 1946

Alpers, Jacob J., 336 East State St., Columbus 15, Ohio.
Garrett, Franklin H., State Hospital, Camarillo, Calif.
Kilpatrick, Oswald, Willard State Hospital, Willard, N. Y.
Lewis, Clarence H., Dept. of Health, Parliament Bldgs., Toronto, Ont., Canada.
Smith, Beverley E., Lt. Col., M.C., Valley Forge General Hospital, Phoenixville, Pa.
Wood, Lorin F., Jr., Veterans Admin. Hospital, Downey, Ill.

(6)

TRANSFER FROM ASSOCIATE MEMBER TO MEMBER, MAY 1946

Adelman, Solomon, Capt., M.C., Veterans Center, Roanoke, Va.
Altman, Leon L., 277 West End Ave., New York 23, N. Y.
Arlow, Jacob A., 1125 Park Ave., New York, N. Y.
Babcock, Charlotte G., 8 So. Michigan Ave., Chicago 3, Ill.
Baker, William Y., 3617 E. Union St., Seattle 22, Wash.
Berlien, Ivan C., 1000 E. Jefferson Ave., Detroit, Mich.
Busse, Ewald W., Colorado Psychopathic Hospital, Denver, Colo.
Caldwell, John M., Jr., Col., M.C., 1818 H St., N. W., Washington, D. C.
Calvin, Daniel W., Maj., M.C., 423 Pike St., Seattle, Wash.
Carpenter, Lorne H., 170 St. George St., Toronto 5, Ont., Canada.
Cromwell, James O., Veterans Admin. Hospital, Los Angeles, Calif.
Dell Cort, Americo P., Maj., M.C., 32 Buffalo St., Canandaigua, N. Y.
Eisenstein, Victor W., 1212 Fifth Ave., New York 29, N. Y.
Farmer, Joseph A., Duke University Hospital, Durham, N. C.
Gancher, Ralph, Veterans Admin. Hospital, Augusta, Ga.
Gronner, Robert, 55 East Washington, Chicago 2, Ill.
Halle, Louis, Capt., M.C., Veterans Admin. Hospital, Chillicothe, Ohio.
Harris, Harold J., 20 Fifth Ave., New York 11, N. Y.
Held, Albert Comdr., M.C., 500 3rd St., Huntingburg, Ind.
Hymowitz, Abraham, Capt., M.C., Veterans Admin. Hospital, Perry Point, Md.
Jones, Robert O., 212 Robie St., Halifax, N. S., Canada.
Katz, Chales J., Elgin State Hospital, Elgin, Ill.
Kent, Emma M., Gowanda State Hospital, Helmuth, N. Y.
Knepper, Orcena F., Eastern State Hospital, Lexington, Ky.
Lang, Leonard C., Maj., M.C., 340 Windermere Blvd., Buffalo, N. Y.
Linn, Louis, 70 E. 83rd St., New York, N. Y.
Marshall, Joseph H., 6 King St., Charleston, S. C.
Mayers, Albert N., 132 East 73rd St., New York, N. Y.
Morgan, David W., Capt., M.C., Utah Medical School, Salt Lake City, Utah.
Myers, Henry J., Capt., M.C., 84 Hutchings St., Boston, Mass.
Parsons, Vollie E., Jr., Lt., M.C., U. S. Naval Hospital, Treasure Island, Calif.
Pasamanick, Benjamin, Neuropsychiatric Institute, Ann Arbor, Mich.
Poucher, George E., Capt., M.C., Station Hospital, Camp Patrick Henry, Va.
Rangell, Leo, Capt., M.C., AAF Regional Hospital, Maxwell Field, Ala.
Raugh, Albert E., Rockland State Hospital, Orangeburg, N. Y.
Sandler, Nathaniel, 903 Kales Bldg., Detroit, Mich.
Sandritter, Gilbert L., Norfolk State Hospital, Norfolk, Nebr.
Schultz, John D., Jr., Institute of Living, Hartford, Conn.
Secunda, Lazarus, 144 Commonwealth Ave., Boston, Mass.
Simon, John L., 15 East 75th St., New York 21, N. Y.
Stanton, Alfred H., 500 West Montgomery Ave., Rockville, Md.
Stellner, Howard A., Capt., M.C., 1617 East 59th St., Indianapolis 5, Ind.
Stern, Maurice L., 30 N. Michigan Ave., Chicago, Ill.
Sugars, Thomas W., 3707 Hoyt Ave., Everett, Wash.
Tucker, Walter I., 19832 Roslyn Dr., Rocky River, Ohio.
Vicary, William H., Veterans Admin. Facility, Augusta, Ga.
Villamena Diodato, 242 East 72nd St., New York, N. Y.
Wilson, John L., U. S. P. H. S., Washington 14, D. C.
Winick, William, Veterans Admin. Hospital, Gulfport, Miss.

(49)

TRANSFER FROM MEMBER TO FELLOW, MAY 1946

Allentuck, Samuel, 150 West 55th St., New York, N. Y.

Arkin, Frances S., 572 Park Ave., New York, N. Y.
Bluemel, Charles S., 550 Metropolitan Bldg., Denver 2, Colo.
Brinegar, Willard C., 105 Pleasant St., Concord, N. H.
Brosin, Henry W., Col., M.C., 3rd Service Command, Baltimore 2, Md.
Caveny, Elmer L., Comdr., M.C., School of Aviation Medicine, Pensacola, Fla.
Cleckley, Hervey M., University Hospital, Augusta, Ga.
Cruvant, Bernard A., Welch Convalescent Hospital, Daytona Beach, Fla.
Davis, David B., 403 Medical Arts Bldg., Grand Rapids, Mich.
Dershimer, Frederick W., 1001 Orange St., Wilmington, Del.
Diamond, Murray A., U. S. Marine Hospital, New Orleans, La.
Dickerson, Willard W., Caro State Hospital, Caro, Mich.
Fisher, Walter J., Provincial Hospital, St. John, N. B., Canada.
Flicker, David J., 82 Clinton Ave., Newark, N. J.
Garner, Hyman H., 4053 W. Wilcox Ave., Chicago, Ill.
Haynes, Elmer, 1836 Parkwood, Toledo, Ohio.
Herman, Morris, 30 East 40th St., New York, N. Y.
Hoffman, Jay L., Maj., M.C., St. Elizabeths Hospital, Washington, D. C.
Kalinowsky, Lother B., 2 East 86th St., New York 28, N. Y.
Kaufman, S. Harvard, 320 Smith Tower, Seattle 4, Wash.
Kelman, Harold, 1230 Park Ave., New York 28, N. Y.
King, Marion R., Bureau of Prisons, Washington 25, D. C.
Klein, Henriette R., 131 East 92nd St., New York, N. Y.
Kubanek, Joseph L., Wayne Co. General Hospital, Eloise, Mich.
Lemere, Frederick, 629 Medical Dental Bldg., Seattle 1, Wash.
Lion, Ernest, 490 Post St., San Francisco, Calif.
Metcalfe, Grant E., 104 So. Main St., South Bend 8, Ind.
Moore, Kenneth G., Rt. 1, Box 574, Ft. Worth, Tex.
Moore, Matthew T., 1813 Delancey St., Philadelphia 3, Pa.
Moreno, J. L., 101 Park Ave., New York, N. Y.
Morse, Robert T., 3106 N. St., N. W., Washington, D. C.
Neale, Claude L., Medical College of Virginia Hospital, Richmond, Va.
Nielsen, Johannes M., 727 W. 7th St., Los Angeles 14, Calif.
Perry, Herbert A., Eastern State Hospital, Medical Lake, Wash.
Pollack, Saul K., 208 E. Wisconsin Ave., Milwaukee, Wisc. (2)
Proctor, Lorne D., 170 St. George St., Toronto, Ont., Canada.
Richie, Richard F., Veterans Administration Bldg., Washington, D. C.
Riley, John B., 330 Cobb Bldg., Seattle, Wash.
Rosenblum, Marcus B., Maj., M.C., General Hospital, Camp Butner, N. C.
Saunders, John R., Westbrook Sanatorium, Richmond 22, Va.
Schonfeld, William A., 211 West 106th St., New York, N. Y.
Shapiro, Louis B., Maj., M.C., 315 Elmhurst Ave., San Antonio, Tex.
Shaskan, Donald A., 25 West 54th St., New York, N. Y.
Siegel, Lester, Capt., M.C., 645 Bergen Ave., Jersey City, N. J.
Teitelbaum, Michael H., Neurological Institute, New York, N. Y.
Thompson, George N., 1136 West 6th St., Los Angeles 14, Calif.
Urbaitis, John C., Warren State Hospital, Warren, Pa.
Wortis, Joseph, 152 Hicks St., Brooklyn 2, N. Y.
Yarbrough, Young H., State Hospital, Milledgeville, Ga.
Young, Richard H., 1436 Medical Arts Bldg., Omaha 2, Nebr.

(50)

Reinstatement as a Fellow, May 1946

Burrier, Walter P., Veterans Admin. Hospital, Bedford, Mass.
Campbell, Myron M., 501 Medical Dental Bldg., Seattle, Wash.

(2)

Corresponding Member

Ellermann, Mogens, M. D., St. Hans Hospital, Roskilde, Denmark.

Honorary Member

Parran, Thomas, Surg. Gen., USPHS, Washington 25, D. C.

President Bowman.—It has been moved and seconded. Is there any discussion? If not, all those in favor of accepting the names on the published list in the Journal and the two names I have read make known by saying "Aye"; opposed "No." Carried. These members are all elected.

Next in the order of business is the report of the Council. Dr. Overholser, Secretary.

Dr. Overholser.—*Mr. President and Members and Guests:* I have a few announcements to make as well. The film, "Let There Be Light," which is a production of the Army Neuro-Psychiatric Division will be shown on Thursday, tomorrow at two o'clock in the theater in Exhibition Hall.

The National Association of Private Psychiatric Hospitals will meet in Room 963 today.

Up to last night we had a registration of 1171 members, 798 non-members, a total of 1969, which

some of us are inclined to think is remarkably good considering the disordered state of transportation.

We have among our corresponding members, Dr. Gonzalo Lafora, formerly of Madrid and more recently of Mexico City. We have Dr. Samuel Ramirez Moreno. We have Dr. Flores of Mexico City and we have our newly elected member. Dr. Mogens Ellermann of Copenhagen. We have from Barcelona, Spain, Dr. Antonio Subirona. From Paris, France, we have Drs. Fouquet and Pelage of the Department of Hospitals of the French Republic.

During the present sessions, the Council has held three meetings, totalling eleven and one-half hours. The Council has heard reports of numerous committees and has attempted at least to take appropriate action on their recommendations. They have also transacted other business which is now reported for the consideration of the Association. Reports of the committees will be printed in the September issue of the JOURNAL. Meetings were attended by a quorum of Councillors and also by representatives of the various affiliated societies.

The affiliated societies, by vote of the Council now for the past two years at least, have been requested to send representatives to the meetings of the Council. They have the privilege of the floor and have all the privileges, indeed, except that of vote. There are also in attendance various chairmen of the committees and various past Presidents and the President as well.

The Council first of all voted to recommend that the 1947 meeting be held in New York City from May 19 to 23.

At the request of the Special Committee on Psychiatry in the Armed Forces, that committee was discharged with thanks and it was voted to establish in its place really, both a Section on Military Psychiatry and a standing Committee on Military Psychiatry.

At the request of the Royal Medico-Psychological Association of Great Britain, it was voted to designate Dr. C. C. Burlingame as delegate to the annual meeting held in Edinburgh in July, 1946, without expense to the Association.

The Council voted to express its sense of gratitude to Dr. Clarence Neymann and his Committee on Arrangements, including the ladies of that Committee on Arrangements, and to the Illinois Psychiatric Society and the Chicago Neurological Society for their hospitality during the meeting.

It was voted that the Council favors establishing the JOURNAL on a monthly basis as soon as that becomes feasible. There may be some delays both clerical and due to the paper shortage.

It was voted to authorize the Committee on Psychiatric Nursing to resume their requirements expanded during the war of three months for affiliation instead of two months in psychiatry.

The report was received from Dr. Whitehorn as a representative of The American Psychiatric Association on the American Board of Psychiatry and Neurology, that new officers have been elected and that certain changes in policy have been laid down. Perhaps I may be pardoned, Mr. President, if I read briefly from one or two of the changes which may be of interest to the membership.

First of all, there will be no certification on record after January 1, 1947. All certifications after that time will be by examination. Candidates seeking certification in both neurology and psychiatry, or supplementary certification in one after being certified in the other, must submit evidence satisfactory to the Board of an additional two years of full time basic training in the supplementary specialty.

There is one section which would be of interest to those training in the armed forces. Credit will be granted for one year of basic training in the psychiatric or neurological service of the Army, Navy or Public Health Service and Veterans Administration. Further credit for basic training will be granted only if the training has been received in an institution recognized by the Council on Medical Education of the American Medical Association and approved by the Board.

Time beyond one year spent in an approved psychiatric or neurological department of the above government agencies may be credited to experience providing the candidate has been regularly assigned to a service in neurology or psychiatry.

The report of the Placement Service was considered of such interest to the membership that sometime ago the Council requested that it be prepared in time so that it might be mimeographed for distribution. You will find copies at your seats.

The report of the Psychiatric Foundation was given to the Council and that will be announced in detail later on.

Four societies were recognized as affiliates, as follows: The Neuro-Psychiatric Society of North Carolina, The Neuro-Psychiatric Society of Virginia, The Colorado Neuro-Psychiatric Society, and The New Jersey Neuro-Psychiatric Society.

It was voted to accept the report of the Council on Standards and Policies, and I should like to read a brief extract from their recommendations.

"It is the opinion of this committee that the Association should take immediate and vigorous action as follows:

"(1) To set forth the actual status of mental hospital care of patients throughout the country.

"(2) To state the reasons why deficiencies have existed and have been aggravated by war conditions.

"The committee urges the Council machinery as funds become available to activate inspection and rating of all mental hospitals and bring to the attention of the state authorities deficiencies requiring correction.

"The committee is also of the opinion that by supporting wholeheartedly the Psychiatric Foundation, the aims of psychiatry as outlined will be advanced by the collaboration of lay and professional groups.

"Finally, the committee recommends that the Association urge general medical and surgical hos-

pitals to include in their plans for development a psychiatric in-patient service. Professional publications, such as "The Modern Hospital" should be requested to carry editorials on this matter.

"It is further resolved that the Council of The American Psychiatric Association take the initiative in gaining the cooperation of the American Medical Association and the American Hospital Association in joint support of this recommendation."

It was voted to nominate Dr. Kenneth Appel as a member of the American Board on behalf of The American Psychiatric Association, succeeding Dr. Karl Bowman, whose term has expired. This is merely a nomination to the Board. The Board technically elects own members.

It was voted to authorize additional clerical help and additional office space for the New York office on account of the increasing amount of work that has to be done there.

It was voted to recommend the list of members as mimeographed and add the names of Dr. Thomas Parran as Honorary and Dr. Mogens Ellermann of Copenhagen as corresponding member. You have already acted on that recommendation.

It was voted to authorize the Committee on Public Education to distribute psychiatric films prepared by the army as requested by the Surgeon General of the Army. "Let There Be Light," which I announced will be shown at two o'clock tomorrow, is one of those films.

It was voted to confirm the appointment of Dr. William H. Dunn as a member of the Committee on Membership. That appointment is the one appointment to any committee which has to be confirmed by the Council.

It was voted to elect Drs. Strecker and Rennie as members of the Executive Committee.

It was voted to establish a Committee on Preventive Psychiatry and also to establish a special committee to prepare another biographical volume when business conditions merit.

I announced on Monday that I would have the report of the Certified Public Accountant relative to the funds of the Association. That report is here and is accessible for examination by any member of the Association who desires to see it. Briefly, in the general account the receipts were $28,315.97 and the expenditures were $534.42 more than that. However, it should be borne in mind that among those expenditures is one item of $3,225.00 which was the amount turned over during the period audited to the National Committee for the Joint Placement Service. That was an extraordinary expenditure. On the JOURNAL account, the receipts were $20,887.85 with an excess of receipts over expenditures of $1,899.99. Somebody should have chipped in a penny! There is a total excess of income for the year, counting both accounts together, therefore of $1,365.47 which is not a large surplus. However, the total surplus account, counting all securities, savings account and checking accounts, is $45,420.76.

STATEMENT OF INCOME AND EXPENSES

FOR PERIOD APRIL 1, 1945, TO MARCH 31, 1946

Income

Income—General Account:		
Membership Dues		
1944-1945	$1,258.50	
1945-1946	24,985.69	
1946-1947	220.00	
1947-1948	1.00	
Fellowship Certificates	75.43	
Membership Certificates	6.47	
Biographical Directory	24.75	
Rent—Committee Psychiatric Nursing	700.00	
Foundation	162.00	
Interest—Savings Account and Canadian Bonds	791.89	
Insurance Refunds	90.24	
Total Income—General Account		$28,315.97
Income—AMERICAN JOURNAL OF PSYCHIATRY:		
Subscriptions	$12,455.13	
Advertising	7,898.70	
Back Numbers	506.77	
Miscellaneous	27.25	
Total Income—JOURNAL Account		20,887.85
Total Income		$49,203.82

Expenses

Expenses—General Account:		
Salary—Executive Assistant	$5,824.98	
Clerical Salaries	4,931.40	
Printing	648.68	
Committee Expenses (Schedule Attached)	7,568.61	
Committee on Mental Hygiene	3,225.00	
Annual Meeting—Subsidy	1,200.00	
Telephone and Telegrams	56.47	
Electricity	81.24	
Rent	1,717.20	
Postage	667.45	
Insurance and Annuities	556.89	
Check Tax	53.92	
Travelling Expenses—Austin M. Davies	188.96	
Foundation Expense	84.34	
Office Supplies	99.40	
Old Age Benefit Tax	77.03	
Income Tax—Withholding	73.15	
Auditing	110.00	
Gift	250.00	
Blanket Bond	182.25	
Miscellaneous	1,250.42	
Total Expenses—General Account		$28,850.39

Expenses—American Journal of Psychiatry:		
Printing Journal (Vol. 101, Nos. 5-6; Vol. 102, Nos. 1-2-3-4)		$14,628.69
Other Printing		27.69
Editorial Assistance (Vol. 101, Nos. 4-5-6; Vol. 102, Nos. 1-2-3-4)		1,174.90
Rent		200.00
Medical Publication Bureau Advertising Commission	$2,104.54	
Printing, Promotional and Mailing	87.56	2,192.10
Telephone		310.97
Postage		327.36
Check Tax		5.90
Miscellaneous (Including mailing Back Numbers	$100.59	120.35
Total Expenses—Journal Account		$18,987.96
Total Expenses		$47,838.35
Excess of Income Transferred to Surplus		$1,365.47

Schedule of Cash and Resources

March 31, 1946

	Book No.	Balance
Chase National Bank		$2,200.12
Union Dime Savings Bank	1,115,778	4,462.54
Emigrant Industrial Savings Bank	137,048	4,478.56
Bowery Savings Bank	258,266	4,866.41
Manhattan Savings Bank	3,557	4,851.90
Total Cash Balances		$20,859.53

Net Resources

American Psychiatric Association (as above)	$20,859.53
U. S. Government Defense Bonds	15,000.00
Canadian Government Bonds	3,057.00
American Journal of Psychiatry—Chase National Bank	6,472.88
Meeting Account—As per statement as per July 15, 1944	31.35
Net Resources Available	$45,420.76

Reconciliation of Surplus Account

Surplus, April 1, 1945	$44,055.29
Excess of Income for Year Ended March 31, 1946	1,365.47
Surplus April 1, 1946	$45,420.76

May I request at this time that the chairmen or the secretaries of the Sections, the various Sections, there now being five: Psychoanalysis, Convulsive Disorders, Psychopathology of Childhood, Forensic Psychiatry, and Military Psychiatry, should turn in to me today the names of the officers elected for the coming year in order that I may make proper announcement of them tomorrow.

I move you, sir, the approval of this report of the Council.

President Bowman.—You have heard the motion. Is there a second?

The motion was severally seconded.

President Bowman.—Is there any discussion? If not, those in favor make known by saying "Aye"; opposed "No." It is carried.

It will be of interest to the members, I am sure, to hear of the various decorations and citations received by members of this Association. We have tried to acquire a complete list, but I am doubtful whether we have such. I know as regards the Selective Service Medal we do not have. We merely have the list of names of those given the national award in Washington, D. C., and there are a great many I am quite certain which were given regionally of which we have no record.

I will ask that you all stand for a moment for our one member who was killed in action, Dr. William Matthews.

The assembly observed a moment of silence.

President Bowman.—We will have the presentation of Fellowship Certificates.

Dr. Overholser.—The President has asked me to request those whose names I call to come forward.

The presentation of the Fellowship Certificates was made by President Bowman.

President Bowman.—We will now take a two or three minute recess and then we will start the scientific program of the morning.

The meeting recessed for ten minutes.

President Bowman.—Will you please come to order again. There will be a change in the order of the morning program. Professor Shapley has apparently been detained and we hope he will be here in time to speak this morning, but since he has not yet arrived, we will ask the second speaker to speak first. We will now listen to the "Place of Psychiatry in the Veterans' Administration Medical Program." Major General Paul R. Hawley, Chief Medical Director of the Veterans Administration, Washington, D. C.

General Hawley.—*Dr. Bowman, Fellows and Members of The American Psychiatric Association:* This reversal of order of papers places me in an embarrassing position. I had thought that we would all have been anesthetized by the mental

gymnastics of an astronomer to the point where I could present my paper in a quiet way and not be embarrassed, but I find instead of following the mental acrobat, I have to precede him.

I should like to give you a general summary, a sort of aerial photograph of the neuro-psychiatric problems facing the Veterans Administration.

Major General Hawley read his prepared manuscript which was turned over to the Association.

PRESIDENT BOWMAN.—Thank you, General Hawley, for this very inspiring address regarding the program of the Veterans Administration. Those of us who have had to do with this know the tremendous obstacles against which General Hawley has had to contend and the tremendous progress that is being made, and we know that psychiatry is getting the recognition which we feel it deserves and we all owe General Hawley a great debt of gratitude for the work he is doing.

Our second speaker this morning is Professor Harlow Shapley, Director of the Harvard College Observatory, who will speak on the subject, "Planets are Predictable."

The address by Dr. Shapley, director of the Harvard Observatory, on "Planets are Predictable" covered various astronomical subjects, including the effects of moonlight, lunar gravitation, and other lunar influences on man and other biological phenomena on the surface of the earth.

PRESIDENT BOWMAN.—There is no need of my telling you, Professor Shapley, how much the audience has enjoyed your talk and we are greatly obliged to you for coming here.

This closes the morning session and I will ask that you reassemble promptly at two o'clock as we have a long program this afternoon. We must close at five in order that the banquet may start at its appropriate time.

The meeting recessed for luncheon at twelve o'clock.

WEDNESDAY AFTERNOON SESSION

MAY 29, 1946

The meeting reconvened in the Grand Ballroom of the Palmer House at two o'clock. President-Elect S. W. Hamilton, presiding.

DR. HAMILTON.—The meeting will come to order. Ladies and Gentlemen, Dr. Karl M. Bowman, President of The American Psychiatric Association.

President Karl Bowman presented his prepared manuscript. (See page 1, July 1946.)

DR. HAMILTON.—Many things might be said aside from the applause to express the gratitude of this Association. It is, however, our custom to take quietly the address of the President and think it over and not reply to it at the time. I do take the liberty of saying to President Bowman that as I watched the intent character of the reception of this audience, I can see that he was stating things in a way that brought conviction to him and I think more than that, brought into words the opinions that many of us have not yet formulated.

This portion of the session is now ended and the President will resume the Chair.

President Bowman resumed the Chair.

PRESIDENT BOWMAN.—We will now pass over to the forum which is open for members only. So that for purposes of free discussion, in order that we can criticize back and forth freely and without restraint without fear of its being misquoted or reworded and given out and appearing as evidence of serious dissension, rather than as honest and a very worthwhile effort on the part of all of us to improve conditions in our Association, we feel that this session should be limited only to the members of our organization. We will therefore wait a minute or two until the hall is cleared and we will start the next session.

The meeting continued with a Forum with Dr. Karl A. Menninger as Chairman.

DR. MENNINGER.—You have all received in the mail the report of this committee and you know the history of this committee. Council felt that certain changes might be made and appointed a committee to do this. Your committee has worked pretty hard on it and spent a good deal of your money and incidentally a good many hundreds of dollars of their own money, every one of them. It's been a hard job.

We have attempted to get information from members of the Association. We feel that we weren't able to learn just how most of the members of the Association feel because most of them didn't answer the letter.

The committee made several suggestions that were considered by the Council and some of these were felt to be impractical or at least not possible, and it wasn't wise to try them out until the members of the Association were better informed and until the members of the committee were better informed as to the wishes of the members of the Association.

Some of the suggestions and some of the comments we got are included in the booklet which you have seen. On the next to the last page of that report we said that we recommend that the next convention of this Association be devoted to a serious, down-to-earth discussion of the practical problems of our members, those problems that our members meet in the daily work of their practice. In the appendix you will see in view of the fact that the meeting was called off last year and the program committee had arranged the program they finally decided that instead of the whole meet-

ing being given to formal speeches and papers this afternoon would be spent on this very important problem.

It was also recommended that the next annual meeting of this Association be devoted entirely to the problems of this Association, in the light of the crises that now confront psychiatry. This recommendation has not yet been acted upon by the Council, nor have the other recommendations of this committee. The Council has waited to see the reaction of this audience and wishes of these members before it takes action on the recommendation of your committee.

It was felt that the best way we could quickly organize an expression of opinion was to take the component societies and ask representatives of those societies to discuss the content of that report with their members and report in not to exceed five minutes each today. We shall begin by hearing from the representatives who are arranged in alphabetical order according to the names of the speakers.

The first speaker will be Dr. Leo Bartemeier, representing the American Psychoanalytic Association.

Dr. Leo Bartemeier.—*Mr. Chairman, Members of the Association:* The collaboration of the Program Committee and the Council with the special committee in providing this opportunity demonstrates their appreciation of the serious import of the questions and the decision which is concerning us this afternoon.

If we content ourselves with adding our reactions to the committee's report, we are complying with what has been requested. If we decide today whether we wish our Association to continue to function as it has in the past, or to expand its activity and become more effective in the future, we demonstrate by our action that we are genuinely interested in this organization of which each of us are integral fractions.

The special committee has debated seriously and repeatedly since January 1945 and if this general assembly fails to take action in one way or another, we as members of this Association will have done no more than to have obediently complied with a simple request.

Before we adjourn this afternoon, it behooves us to determine our future course.

Soon after the special committee began to deliberate the question to which it had been assigned, it became evident that it could function more adequately with a suitable increase in its personnel; its recommendations that it be enlarged was not concurred in by the Council of this Association. The committee continued to feel the need of additional minds in order that its recommendations would have the benefit of more careful consideration.

This general assembly will do well to express its opinion in this connection. It can at least offer its suggestions to the Council.

The Council has seldom had the opportunity to know the voice of the membership and I am sure it would welcome our suggestions. You will note that the report of the special committee as submitted in December 1944 was accepted, but I call your attention to the fact that no action has yet been taken by the Council regarding the recommendations of the committee for our next annual meeting.

It is sincerely hoped that this general assembly will pass a resolution expressing itself for or against this special recommendation of the committee. It has become evident to us all that the time has come for our Association to concern itself with the practical problems which our members meet in their daily work.

Ladies and gentlemen, we are the Association and we must express our wishes no later than this very afternoon whether or no we would like the kind of meetings suggested for next year. Each of us is faced with problems which we as individuals cannot solve, but which we as a body may work out to our individual satisfaction. These problems are also the problems which affect our psychiatric education, the legal aspects of psychiatry and the hundreds of thousands of patients in our state hospitals. The time has come for us to see that we can no longer content ourselves with our own individual lives. We are part and parcel of this Association of the communities in which we work, and the country we call our own.

We learned this lesson in the war and we must not fail to profit by this great experience.

Dr. Menninger.—We have asked these men to talk to us frankly and with the understanding that we all want to exchange views. The next speaker to do so is Dr. Daniel Blain who represents the Veterans Administration.

Dr. Blain.—Ladies and gentlemen, I am in a unique position. I wonder if you know that the position I hold in neuro-psychiatry in the Veterans Administration was nominated by the official Committee of Veterans Affairs of the A.P.A. and therefore I come to you as your immediate representative. There was no question in General Hawley's mind as to my qualifications whatever. He merely said, "You have been nominated, will you take the job?"

I come to the Association with considerable feeling that I have a right to tell you what I want to. This concerns the 20,000,000 veterans. The rest of the population cannot be considered separately. One of my efforts is to share the responsibility of professional men in medicine. We are getting a great deal of help but we want more. I interpret my position to assist General Hawley in all matters pertaining to psychiatry, clinical psychology, immediate treatment in hospitals for the prevention of mental disease and the plan was considered for the immediate present and the distant future.

There are 20,000,000 veterans in the entire country and its wisdom will affect the proper expenditure of a total cost of ten billion dollars. That is a very, very conservative figure but I was afraid that if I was quoted, I better not get too near the borderline of shared responsibility with

the Veterans Administration as well as those of you to whom I go for help.

I cannot afford the real responsibility as long as I am in this position. Our problems are in part, the following: Physical plants which means locations, size, functional planning, estimation of the number, types of beds needed now and in the future, the extent of out-patient facilities needed now and in the future, the rendering of service, sufficient doctors properly selected and trained with sufficient compensation. We need nurses, social workers, clinical analysts and other professional lay workers and members of all of the vitally interested public. The rendering of proper services means the acquiring of new knowledge and the clarification of present knowledge. We need a method of description of such knowledge which will allow the transference of information accurately and clearly and permit studies and comparisons that have sufficient value to make such studies worthwhile.

Our understanding of the problems of psychiatry should help us to place with reference to other specialties in medicine the part that psychiatry should play in the complexities of national and international life and factors of national and international life which influence the extent of mental disease.

The rendering of proper service means the delineation of functions of various groups of workers and the specific part each should play and the coordination of their effort.

These are some of the things which we need. I mentioned many of these factors which need to be clearly understood for the proper planning and treatment of mental illness. Some of these are the proper function of The American Psychiatric Association under its present constitution, and many are being carried out. Some may be considered as proper expansion of function and some are obviously the proper function of other organizations. I join with the President in the idea that The American Psychiatric Association should investigate carefully all of these fields from time to time and decide which belongs to itself, and which to others and that it must adhere to a broad concept of psychiatry in modern life and add to its own responsibility a coordination and promotion of the same point of view in other organizations and coordinate these with its own functions, thereby taking the lead in all matters pertaining to psychiatry and attaining a position as the permanent and paramount leader in the field of mental health.

DR. MENNINGER.—Our next speaker, Captain Francis Braceland, of the Navy.

CAPTAIN BRACELAND.—I will take about four minutes. A great deal of the heat and some of the lightning has been taken out of what I was to say. There are two events that have made me happy. One is the close of the war, and the other is the excellence of the President's address in which he covered point by point many of the things which I would like to have explained.

Upon going to Washington, I was assigned to a department before getting into Navy psychiatry, the name of which will not now be stated. My job was to answer the mail which went to the White House and to government departments about things medical. I answered perhaps 30 to 40 letters a day along with telegrams to the President, about half of which were complaining about psychiatry and psychiatrists. Some of them were vitriolic and from some it was plain to be seen they were written by people not well and the whole thing struck me that considering all the types of organizations, the only ones we didn't hear from in government were the bodies that we should hear from, the psychiatrists themselves.

I therefore asked several times what could be done about various things and was told this was not an administrative body. I felt in my mind there should be somehow, somewhere in this organization, an administrative body. We saw in the services many things happen because there was no place for us to go. We did appeal to our consultant who gave freely of his time at all times and went everywhere. The committee was very willing to help. In the war committee there seemed to be a lack of something; it all probably should have been worked out in a much, much bigger way than it was.

We see such things as psychology in an anomalous position of being moved in this town and throughout the country into the hands of counselors and so on and the end result of that is that each student graduate from Columbia with an A. B. in psychology will be doing psycho-therapy when immediate pronouncement of that as rehabilitation, psychological warfare and many other things which should be the function of a body which is organized to give its opinion as a body with weight of authority behind it.

There are several things happening and nobody to save them now. I think the President spoke about an exposé in the papers and it would have been much better for The American Psychiatric Association to have said that in public.

I think that our incoming President is having difficulty with his grand old hospital, 90 years old, and that difficulty is being caused by a clerk, an underling in a department and that hospital is being militated against and is being changed and I don't know of any great authoritative body which has thundered about it and said, "That has been going on for 90 years and done an excellent function. We don't want anything to happen to it."

This body is powerful enough if organized to speak for psychiatry and come to the aid of the members when they are in difficulty so that they and state hospital superintendents and other people who are in the public eye do not have to fight this thing alone. Thank you.

DR. MENNINGER.—From our sister country of Canada, and we are happy to have a good many members in that country, we received a letter signed by a considerable number of our colleagues in Canada expressing the sentiment they did not wish any change in the Association. Since then, many

individual Canadian members have told me that was not their sentiment.

Be that as it may, we have asked for two Canadian representatives, one of whom will speak next, Dr. D. Ewen Cameron, Montreal, Canada.

DR. D. EWEN CAMERON.—*Mr. Chairman, Members of the Association:* I should like to disassociate myself from the letter to which you heard reference just made. It was written in another city. (See p. 268, September 1946.)

DR. MENNINGER.—Dr. Anna C. D. Colomb, New Orleans Society of Neurology and Psychiatry.

DR. ANNA COLOMB.—When I received Dr. Menninger's request to get the views of the Society of New Orleans on the reorganization of the Association, my first obstacle was the fact that I was met with the answer, "You go ahead and do it." It took a great deal of effort to get even eight members of the possible thirty members of the organization in the State of Louisiana to gather for a meeting. When we did finally arrive for the discussion of the report that had been sent to us, I found that only two of the eight members had read the report. Finally, it was decided after much discussion to again canvass the rest of the members in the state inasmuch as there is no state local society.

We prepared a report of our local meetings in detail and submitted a list of questions and again canvassed the other twenty-odd members who had not attended the meeting, in order to have a better representation. Finally, however, we got seven more replies, in all exactly 50% of the possible interested members in the state.

We attempted to get in touch with and send copies of the committee's report to the state hospitals, to the members of the various government organization in and around New Orleans. The first question that was discussed was as to the machinery of the organization. The usual response to that was that they knew nothing about it, that they were too far away from where the machinery usually functions to know what was going on and what it was all about and what could be done about it.

As a result of that, there then developed a request that I present to the organization a plea for better representation of isolated areas like ours in the Deep South, in order that we may learn what the organization is doing and what it can do for us.

There developed a good deal of interest, however, in subsequent discussions.

Passing over the fact of the machinery about which we felt we didn't know enough to comment, the general trend of the discussion was the need for education. Most of the group felt that a national organization such as ours was certainly in a position to influence other national organizations such as the general medical organizations, national legal and social organizations and that we should publicize educational and other psychiatric influences they might have, so that it would penetrate down to the local organizations that we needed more mental hygiene emphasis, that we need more education particularly of the general medical profession, not only through training in schools which would take a long time, which has been emphasized so much in this meeting, but that we need a speakers' bureau that could send speakers to our local medical society and bring to them some of the modern views.

Our psychiatric departments in the state hospitals were particularly articulate about their duties. They said they were too busy and did not have the funds to attend national meetings or spend a week in Chicago or New York or San Francisco. The JOURNAL did not add much to their knowledge.

DR. MENNINGER.—Our next speaker is Dr. Herman A. Dickel, North Pacific Society of Neurology and Psychiatry.

DR. HERMAN DICKEL.—*Mr. Chairman, Members of the Association:* My Association first wished to express a great deal of appreciation to the special committee for sending out the report. They particularly appreciated an opportunity to send a representative to this meeting to express their opinions.

The North Pacific Society of Neurology and Psychiatry is a group representing specialists in psychiatry and neurosurgery in that part of the country, Washington, Oregon, and British Columbia. It is the only affiliated society that I know of that has international makeup and as such, its individual viewpoints are great and very broad and therefore many conflicting reports came to me to bring here today. However, there are certain ones I can summarize for discussion.

The vast majority of members believe wholeheartedly in the committee and are back of it all the way. They wished me to express to the Association that as many things be done as possible to modernize the Association to take care of the present needs.

They would like to see the program changed somewhat to make arrangements for more clinical presentations such as is true in a national program for medicine and surgery. They would like to see more panel discussion where leaders are chosen rather than speakers. They would like to see the gradual appearance throughout the country of local sections, not to take the place of the national organization, but rather to extend the national organization so that local meetings might be held. They feel that the attitude of the society should change from being on the defensive to taking a very challenging, aggressive attitude toward their problems and meeting them. Most of the men felt, and this was particularly true of all of the members who are members of The American Psychiatric Association, most of them felt that in some way or other, the local societies should have a greater representation in the governing of the National society. Thank you.

DR. MENNINGER.—Dr. Robert H. Felix, representing our colleagues in the United States Public Health Service.

DR. FELIX.—*Mr. Chairman, Members of the Association:* Much of what I was going to say has been said and I will try to brief my remarks and not repeat.

Any consideration of the rôle The American Psychiatric Association should play in the years immediately ahead must be predicated upon the needs of American psychiatry. Certainly the time is now past when our Association can continue to justify its existence on the present bases of the annual meeting, the JOURNAL, and reports of committees which all too frequently are not followed by definite action. The fact that, with few exceptions, all North American psychiatrists are members of the Association gives evidence of the importance of our organization to psychiatrists generally, and indicates our great responsibility by stressing the leadership that we must assume. The organization must have a positive, a dynamic purpose.

One does not wish to see a sudden revolutionary change in the society for such an occurrence might well be disastrous. Many of us, however, are anxious to see in this Association some reorientation of emphasis and the development of much needed services to our members and to society with a rapidity which is consonant with the changes in viewpoint that are taking place in our field.

Needed improvements will be considered here under the following headings:

(a) The annual meeting
(b) The JOURNAL
(c) Activities

The Annual Meeting.—This, principal function of our organization, as far as the majority of the members are concerned, is a delightful occasion, somewhat resembling Homecoming Day at college. Although it is not intended to minimize the social aspects of our conventions nor the value of informal discussion of mutual problems, is should be obvious that such an attitude is in great measure a result of the general character of our meetings. We endeavor to include so many presentations in our program that it is necessary to run what amounts to a three-ring circus, with the result that two or three important papers are often presented at the same time. Because of the time element, it becomes necessary to allow inadequate time to many important papers. To many of us there is little that is stimulating or attractive in a series of formal presentations the discussion of which must be sharply curtailed because of time limitations. One can eventually read such papers in the JOURNAL with equal profit.

To this writer, and to others with whom he has talked, it seems that too little time is devoted to discussion groups and much could be gained from clinical conferences. The formal presentations should be limited to lectures or papers on subjects of great social or medical significance to the entire Association and to medicine, and they should be scheduled so that no other activity would conflict with them, thus making it possible for all members to attend.

It is suggested that each morning of the annual meeting be devoted to clinical presentations and discussions and to technical lectures and demonstrations at the various hospitals, clinics and laboratories throughout the convention city; that the afternoons be reserved for the general sessions mentioned above; and that two or three evenings be devoted to round table discussions. For these latter discussions a general topic should be assigned for the evening and the various aspects of the problem taken up in these discussion groups. Certainly such subjects as rehabilitation, industrial psychiatry, psychiatric education, psychiatric research, and group psychotherapy, to name just a few subjects, deserve a much more exhaustive discussion than they can receive under our present round-table scheme.

The Journal.—Because of the great importance now attached to psychiatry in the fields of medicine and the humanities in general there is a considerable increase of activity in all phases of the subject. The results of this activity must eventually be reported to all of us if we are to keep abreast of this ever-expanding field. Since the premier reporting organ should be THE AMERICAN JOURNAL OF PSYCHIATRY, it is felt that it is essential that the JOURNAL be issued monthly instead of bimonthly as is now the case.

One of the most irritating aspects of the JOURNAL is the tardiness of its issue. This situation should be immediately remedied, so that issues are not routinely received two months late. A number of suggestions could be made regarding the JOURNAL, if time permitted. One example, however, comes immediately to mind. The News and Notes section is anything but timely. For instance, the report of the Annual Meeting of the National Committee for Mental Hygiene, which was held in November, 1945, and the report of the Annual Meeting of the Pennsylvania Psychiatric Society, which was held in October, 1945, were contained in the March, 1946, issue, which was received in the middle of May. This was anything but a journalistic scoop.

Activities.—At no time in medical history has the need for psychiatric services been so widely recognized. There is an increasing demand, not only for proper care of mental patients, but for an active program of therapy in mental hospitals. It is now also generally recognized that extramural psychiatric services are at least as essential as work in institutions, since such services are in fact that aspect of a properly integrated program which concerns itself primarily with prevention and early treatment. The great source of support and stimulation for such a program should be this Association. Just as officers of the society, speaking in its name, testified at the congressional hearings on the National Mental Health Act, so should members be designated to give our official views when legislation affecting mental health is under consideration in any of the states. The proper standards to be adopted should be brought to the attention of the legislators, together with recommendations for writing legislation around these standards. This means an active and alert legal and legislative research section in our headquarters

office. Similarly the Association should stand ready to support officially and actively any public mental hospital superintendent in his efforts to obtain legislative action to improve this institution.

Every effort should be made to serve the hospital superintendent or the clinic director upon his request. Such individuals should be able to obtain full information regarding hospital or clinic administration and procedures upon request to our headquarters office. A reference, research, and consultation service in these fields could be set up for which, it is believed, many institutions and clinics would gladly subscribe and pay a reasonable fee. Without detracting from the importance of the needed activity in the institutional field, it must be stressed that in psychiatry as in all other branches of medicine, an ounce of prevention is worth a pound of cure. This Association must become more preventive-medicine-minded than it has in the past. This means much greater emphasis on extramural psychiatry.

It is felt that the activities in the field of psychiatry have become too numerous, too widespread and too important to permit the Association to play an aloof role. Many of us are clamoring for definite statements of policy and standards which we badly need as our authority in making decisions and establishing our own policies. While those standards and policies which have been enunciated have been, in general, accepted as final authority, it has been necessary in some instances to establish standards of our own because none were forthcoming from this Association. The establishment and dissemination of such standards is a service which the Association should consider as a duty of first importance, and in so far as it has been necessary for this to be done outside of the organization, it is to that extent an indication of failure of the Association to do its full job.

Now that the war is over and our members are returning to their peace-time work, this Association should stimulate and sponsor training institutes and refresher courses over the country, drafting such of our membership as are qualified to participate in the instruction. There should also be official sponsorship of regional meetings at various times of the year for more frequent exchange of information that that afforded by our annual meeting.

The activities as set forth here cannot be carried on successfully by men working part-time. There should be full-time personnel to administer and direct all the activities carried on by the Association, such personnel to be responsible to the organization through the Council and President. It may be that at a not-too-distant future date it will be necessary to employ several individuals to carry out these tasks, as recommended by the special committee, but for the present, at least, it is felt that the appointment of one person serving as full-time Medical Director would be a very constructive step. He would be authorized to express our organization's views on questions with which we are concerned, and it is suggested that such views be expressed whenever it is thought advisable, whether or not they are solicited.

The suggestions made here are intended to place The American Psychiatric Association in a position to better serve its members and society and to take active and aggressive leadership in the field of mental health. As all of our members know, great developments in our field are afoot. If all of us are to coordinate our efforts for the common good this Association must take its rightful position of leadership. As members, we should be able to look to it for advice, support, and counsel. In order for this to be possible, the Association must be willing to take a positive stand on many issues and to defend this stand vigorously. The time is past when progress can be made by the adoption of a middle-of-the-road policy. We must, as an organization, press for improvements all along the line.

DR. MENNINGER.—Dr. Earl K. Holt, Massachusetts Psychiatric Society.

DR. HOLT.—Inasmuch as some of the material and points at issue seemed to have been settled by Dr. Colomb's address, I will omit those.

These comments of mine are not formal conclusions on any point reached by a vote of the organization which might be considered as compromising to the position of any of our members as they come up for final action. They are an attempt to interpret the attitude of a substantial segment of the Society informally secured. I think it would be easier if there had been more complete uniformity—easier to come here as an advocate, if we had been 100% in favor of one thing, but that wasn't true. There was some difference of opinion on the need for reorganization.

No society has an organization that is so sacred it can't be attacked and changed. This society can change its structure, but we have a few differences of opinion there. The question of the light gradually fading from the society has been raised.

One suggestion was received which I would like to offer, that we visualize the duties of a Director to be defined as precisely as possible and with a view toward establishing these functions, that they be executed by one or possibly two special committees, but with ample authority to carry out their work and the members of these committees might be allowed a reasonable fee. Any committee would be required to continue from year to year without indication of perpetual membership. There is a uniform support or expanded activity of this society and there must be no attempt to hold off or wait for another year or delay action.

There was a very strong sentiment in favor of the more democratic method of election and as a number of suggestions were offered, too numerous to justify going into and most of which have been heard at other times, I will not go into that.

They suggested the larger use of general meetings and less sections in the organization of the Society, but there is ample justification for this multiplicity of sections and probably that will have to continue as far as we can see.

There is no strong opposition to a moderate raising of the dues because of increased expense.

There is a suggestion made that the Society could establish a membership entrance fee, a substantial fee which would raise some money, but none of these measures would be means of supporting the amplified program of activity as we visualize it for the Society. Thank you.

DR. MENNINGER.—Dr. William Keller, Kentucky Psychiatric Society.

DR. KELLER.—Out of a total membership of 40, 26 of whom are members of APA, there is one specific purpose which is that of stimulating interest in things psychiatric. Many of our members are satisfied with the gradual growth of the Association as it has evolved. Certain members have expressed dissatisfaction with particular areas. It is my duty to enumerate those opinions.

From the organizational standpoint, dissatisfaction is expressed by a definite minority on the policy of nomination and the election of officers, suggesting there be more nomination from the floor. We submit that the various committees of The American Psychiatric Association do an excellent job in their spheres but too many of their recommendations are filed away without any specific action, thus nullifying their time and effort.

We believe that the membership should be kept informed of the overall purpose, aims and achievements of the Association, perhaps through the JOURNAL in the form of Council notes or presidential messages. Warning is given that greater care should be taken concerning the admission of new members.

Most dissatisfaction is expressed over the apparent schism between the different schools of thought. It is suggested that this gap be bridged through the development of a liaison for coordination so that we may be able to receive a blend of all of the available approaches and be allowed to shy away from the "either/or" attitude. This is not to discourage the varied interests, but eliminate the three ring circus motive and bring the greatest good to the greatest number.

In Kentucky we need all the help we can get to further publicize what psychiatry can do and cannot do. If this purpose can be furthered by the publication of bulletins, then we want it. If there is an increase in dues necessary to carry on a common sense plan of education of doctors and laymen, then we are willing to pay for it.

We would like to see the psychiatric curricula expanded in medical schools. We believe there is at present an unparalleled amount of information in objectives and results which should under no circumstances be allowed to move by the board. The hundreds of thousands of carefully worked up records of psychiatric casualties available in the War and Navy Departments, if not followed up immediately, will be forgotten and lost forever.

Lastly we submit that these are seething times in the matter of reorganization of The American Psychiatric Association. We would suggest a paraphrase of Kentucky's own State motto: "United we succeed, and divided, we fail."

DR. MENNINGER.—The New England Psychiatric Society was wired three times to send a representative. Since they have no representative here today, we will go on with Dr. R. P. Knight of the Kansas Psychiatric Society.

DR. KNIGHT.—*Mr. President and Members:* This afternoon we heard a most excellent address from our retiring President. Were we to consider this speech carefully, we would find it covers almost everything that needs to be done in the field of psychiatry. It has taken a lot of thought; it demonstrates broad vision, it has seen the problems in the country today, however, President Bowman, this should have been an inaugural speech; not a retiring speech. The new President does not need to pay attention to this speech. The new President appoints a committee. The speech is published and it is read and it is filed away. There is no way to get implementation of action unless the committee which hears the speech wishes to draw something from it and turns Bowman's recommendations into action.

It seems to me that is one of the faults of our organization, that we let a retiring president tell us what he recommends at the end of his term and then do nothing about it. Our committees seem to be appointed to study and not to act. The committees make reports and the reports are distributed and often the committees do not meet. I spoke with one member of an important committee this afternoon. His committee had not met and we had heard nothing from it during the entire year. The committee was called to meet with one other organization and nothing came about.

Too many of our committees are or have been appointed for honorary reasons and their reports do not reach out to the members and the reports are not turned into action. I would like to second Dr. Cameron's recommendation especially that the two very important committees on education and public relations be re-constituted and turned into committees that are active and aggressive.

There is no program in the Association that takes care of all of the different types of members. The backbone of the Association as has been traditionally developed, is the state hospital which composes the largest portion of our membership. These men have had very, very little help in their local districts. They have to go to the legislature and fight for budgets to take care of their patients and salaries adequate for them and for equipment and new buildings. We have standards which they are trying to live up to. We criticize them for not having adequate facilities for their patients, yet the Association does not throw its weight in the fight and each local section has to try to get these facilities that they are working for.

We have other members in private practice and teachers and all of these men need to have a program that is implemented in some way that the Association backs it up and carries it out.

I would summarize this by saying that we need the program that President Bowman put forth and these recommendations must be implemented

through committees which work and which turn such recommendations into action.

DR. MENNINGER.—We have a representative from Illinois, Dr. John J. Madden, Illinois Psychiatric Society.

DR. MADDEN.—*Mr. Chairman, Members:* As nearly as I have been able to ascertain in informal conversation with the members of the Illinois Psychiatric Society, there is a feeling abroad that our Association has remained too aloof and has not interested itself as an organization in the many problems which confront psychiatry and psychiatrists today.

To name a few of these: Mental health laws, obtaining appropriations sufficient for state hospitals to provide proper care for the mentally ill, and the difficulty encountered by privately practicing psychiatrists to obtain suitable bed space and general hospital room for the care of the mentally ill.

As a possible explanation for the meager response which the committee received to its questionnaire, one might remark that many, many members were practically taken aback and rendered inarticulate by a request for counsel from our Association, since in the past most of the responsibilities and many of the activities of the organization have been carried on by relatively few of the members.

As has been remarked, our President in his excellent speech this afternoon has covered most of the points in detail that I have heard mentioned by any of our members. Our members feel the great need for this committee and it is their feeling that much of what we desire may be accomplished by devoting an entire annual session to a consideration of the problems of each organization of The American Psychiatric Association.

DR. MENNINGER.—The committee received another group letter signed by a considerable number of the colleagues in Pennsylvania protesting against any substantial change. The Pennsylvania Society was asked to send a delegate and they sent us as their representative, Dr. LeRoy M. Maeder.

DR. MAEDER.—*Mr. Chairman and Members:* When the special committee asked for a report for the consensus of opinion of the Pennsylvania Psychiatric Society, we had a meeting in order to obtain a sampling of opinion. The Pennsylvania Psychiatric Society was founded in 1939 on the general plan and organizational merits of this Association. We have felt and we do feel that The American Psychiatric Association as constituted at the present time has many tremendous and important values which should be preserved. As Dr. Menninger remarked, from that letter there were many Pennsylvanians who were opposed to any considerable change. We do want to preserve the meetings, the educational program, the clinical papers and research. We also feel that the social function, that is, the chance here of getting together and exchanging our ideas is of tremendous importance.

This, however, is only part of the point of view of the Pennsylvania members. We feel that we should have much closer, continuous and vital integration and effective interrelationship between the affiliated societies, the state societies and the various local societies and The American Psychiatric Association.

I believe it was the Pennsylvania Society which first asked Council whether we might not have a representative at least sit in on the meetings of the Council of the APA. That privilege was granted several years ago. Prior to the Centennial Meeting in 1944, I had the honor to be asked to help get together, at least chair a meeting of representatives of affiliated societies at that time. We met and had some vital and important discussion and the result of this discussion was that we asked Council of the APA to appoint a committee on Affiliate Societies which might function with the Chairman and report at the annual meeting of Council. Council saw fit not to follow out that suggestion. Pennsylvania's members, a good many of them, feel we are losing a real opportunity for effective use of the affiliate society if we do not effect an organization whereby we can exchange ideas. We can conceive of representation of the affiliate society at the annual meeting of the APA after their various sections have gotten together and exchanged ideas and channeling them to the Association, which would be ideas prevalent in the membership throughout the country which would be a very valuable contribution. In turn, this information can be pooled in Council and then effective action taken back through the affiliate societies which stand ready to work on various projects that come up.

I need not mention the various vital projects that each state hospital has. I will just say we will have three existing in each society, namely: Increased appropriation; improvement of the mental hospitals, personnel and standards; increased use of general hospitals, out-patient and in-patient care and also the matter of post-graduate education to veterans.

I think we can do a lot more than that if we have a continuous interchange of ideas, not only of ideas, but actual work policy the year through. So Pennsylvania does have a very definite, vital integration and coordination of the National Association with its affiliate society which stands ready to cooperate to the fullest extent with the mother Association.

DR. MENNINGER.—Our colleague in the United States Army, Brig. General William C. Menninger.

GENERAL MENNINGER.—I want to express in quotations, and almost all of my remarks are in quotations, a representative opinion of a considerable number of the 900 members of the Medical Corps in the Army.

The Association was described as "dormant and passive, conspicuous by lethargy, detachment from reality." These are the comments of various people. "Lagging in the assumption of responsibility to the states and world communities."

"It is dominated by institutional viewpoints."

"Too much politics in our leadership."

Some of the men expressed their views a little more expressively; they felt the APA had muffed the ball disastrously by not assuming a more far-sighted and aggressive leadership.

"The Association has failed in its obligation of health by not having sufficient public education and not keeping the government abreast."

A criticism came from one member, as follows: "I was one of the 92% who failed to reply to the letter of inquiry. My honest reply would have been that apart from receiving the JOURNAL I have not been aware that The American Psychiatric Association has played any rôle in my professional life." That sentiment was voiced by others who felt they had no personal participation and did not know what the Association was doing or what it could do or what they should do. There were several expressions that they had no help from the Association in their job in the Army. Several believed it could have been.

There were many suggestions relative to the organizational structure. It was pointed out that the president serves for one year and then he is out. "What do the committees do?" Repeatedly the phrase was used: "We need new blood in the leadership. During the next year, let us have a president of the Association who is a man who is fearless and aggressive and not being promoted for faithful or long service."

Another wrote: "There is no evidence that the old line organization has even a grasp of the psychiatric problems of the veteran."

There were repeated expressions of criticism of the JOURNAL. "The older generation has a stranglehold on the organization." They brought out the fact there was one man under 50 years of age among the officers in the Council. There were constructive recommendations that the APA should have psychiatric training and it should seek to increase the number of residencies. "It should have available a list of available residencies."

"There should be graduate seminars."

"What is the Association doing with regard to better acceptance of the undergraduate?"

"Many psychiatrists in the armed forces are aware of the pressing need for education. Why don't we get a real public relations officer? The public wants information."

Because of the Army experience, the psychiatrists were aware of the value of close contact and several indicated that the Association should make plans for active indoctrination of the purposes of the Association. "The members want to know what is happening."

"What is the Association doing?"

"What has it done?"

The suggestion was made to the Association to take the initiative in an effort to get organized assistance to state hospitals. As might be expected, there was strong feeling for the need of a Section on Military Psychiatry. Three individuals suggested a recommendation be made by the Association to place the Surgeon-General in his rightful place on the General Staff. There was an equally militant recommendation for assumption of the relationship of the returned veteran now and not wait until a non-military group took it over. The Army is working closely with the psychiatrists. The suggestion was made that we should have interrelationships with these groups and that they should make a closer liaison in training and working with them. So long, my five minutes are up!

DR. MENNINGER.—Our colleagues in Canada are further represented by Dr. R. C. Montgomery of Toronto.

DR. MONTGOMERY.—*Mr. Chairman and Members of the Association:* The American Psychiatric Association is of very great importance to the Canadian psychiatrists. There have been Canadian members since the earliest days of the Association and of the 72 presidents of the APA, 6 have been Canadians and in recent years Canadian psychiatry has benefited materially by the professional advice which it has been able to secure through the APA.

In 1936 and 1937, Dr. Hamilton and Dr. Cameron conducted a survey of the Ontario mental hospitals and the mental health services and their report has been of great assistance in modernizing and extending our facilities for the care of the mentally ill in Central Canada.

The standards of The American Psychiatric Association for personnel requirements in mental hospitals have been used as a guide for many years. The APA adviser on psychiatric nursing has given tremendously of her time and advice. The Editor of the JOURNAL, Dr. C. B. Farrar, has occupied a prominent place in Canadian psychiatry for many years, and he has exercised an important influence on the development of young psychiatrists. The Canadian members of the APA are indebted and have a substantial interest in the Association. An examination of the Directory of The American Psychiatric Association published for 1944-1945, will show that there are 82 Fellows and members of the Association. These members come from all nine provinces of the Dominion. In number they represent only a small proportion of the total membership of the Association and it is therefore appropriate to put forward our views in regard to the matters of policy in this manner.

On February 12 last, I received a wire from Dr. Menninger, Chairman of the Committee on Reorganization in which he asked that I canvass my Canadian colleagues regarding their views and undertake to speak for them at this meeting. On receipt of ten copies of the committee's report, I forwarded one copy to a representative of each of the nine provinces asking for views. The replies I received contained a number of suggestions and in order to determine the extent to which these were truly representative of the Canadian opinion, I sent to the Canadian Fellows and members a short questionnaire and it is the result of this questionnaire which I propose to report to you now as an expression of Canadian opinion on some of the questions now under consideration.

On behalf of these members, I can report as follows:

The Canadian members are very strongly 90% in favor of a proposal made by one of our own members of APA undertaking to establish standards, grants and formal approval to mental hospitals in a manner similar to that which the College of Surgeons approves.

The Canadian members are strongly in favor of the further development of regional groups and regional meetings within the Association.

The majority or 70% of the Canadian members are in favor of recommending the proposal that the program of the next convention of the Association be changed to provide for a larger number of small discussion groups and fewer formal speeches and papers.

The Canadian members are about equally divided for and against the proposal made by one of our own members as to the method of nominating and electing officers, that it be changed in such a way that individual members will be given opportunity to participate.

The Canadian members are divided equally for and against the proposal that APA publish a fortnightly bulletin providing a more effective means of intercommunication of membership.

The Canadian members are strongly opposed to the suggestion that a full time medical officer be appointed by The American Psychiatric Association.

On the question of increased fees in the interest of reorganization and expanding the functions of the Association, the Canadian members are divided for and against an increase of fees up to twice the present scale, and they are unanimously opposed to any suggestion of an increase which would be any more than twice the present scale.

DR. MENNINGER.—We next have Dr. Roy A. Morter of the Michigan Society of Neurology and Psychiatry.

DR. MORTER.—*Mr. Chairman and Members:* What I have to say is not an official communication from the Michigan Society of Neurology and Psychiatry, but it may be accepted as comment which I have gleaned from the membership during the past year.

We are living in an age now, not an age of revolution, but an age of evolution; an age when members of this society are seeking identification with this organization. In a democracy, the individual identifies himself with the government through the right of franchise. Yesterday the ballot spoke, tradition was set aside. The setting aside of tradition is not fatal, it is evolution.

First of all, we in Michigan would like to ask this question: What is the relationship between this society and the affiliate societies as set up under Article 4 of the By-laws? Can a meaningful and beneficial relationship be established between the affiliate society and this society? Why are there so many additional societies and associations being set up to carry on work which should be initiated by the APA?

We believe that the membership of the Council should be enlarged in order to give the membership of this vastly growing organization the proper representation. We believe the Association should be insistent upon adequate teaching of psychiatry in the medical schools and the establishment of training standards in hospitals approved for residencies in psychiatry.

At this meeting there has been much talk about standards for residencies in psychiatry. I am wondering if we are going to adjourn and go home without doing something about it. Definite standards should be established for residencies in psychiatry. We believe that all state mental hospitals should be graded by The American Psychiatric Association in somewhat the same manner that the medical schools are graded by the AMA. That would be an unpleasant task for this Association but we are sure that it would be a means of raising the standard of all state hospitals in the United States. If a legislative body in any state knew the mental hospitals in their state were graded low, they would be stimulated to a more liberal appropriation.

The committees should have definite assignments and should use their initiative in developing recommendations to pass to the Council for action. We believe that membership on a committee should be accepted with grave responsibility. No one should accept an appointment on a committee unless he is willing to sacrifice his time and expense of attending committee meetings. The members of each committee should live within 500 or 600 miles of each other so the members could get together with the least possible expense and loss of time. To illustrate this point, I have looked over the committee reports over the past ten years and it is surprising how often a chairman of a committee renders a report in the form of an essay and gives no information as to whether or not a committee meeting was held. In another instance, the committee chairman reported there was no matter to discuss and no meeting of the committee was held. In another committee report it was stated that distances were too great and it was difficult to get the committee together.

In conclusion, I want to comment on our President's address and I think we in Michigan can endorse everything that he has said. All we want is to get the committees going. We are anxious to expand the Association as it needs to be done. Thank you.

DR. MENNINGER.—We have two more speakers, and then the audience will be asked to contribute. Dr. H. M. Tiebout, Connecticut Society of Psychiatry and Neurology.

DR. TIEBOUT.—*Mr. Chairman and Members:* The Connecticut Society for Psychiatry discussed the report of the committee in a meeting in March of this year and while comments were many, they were varied and nothing clear-cut in the way of conclusions can be brought to this meeting. However, on two points there seemed to be general agreement. First, there was no wish to increase

the dues to any appreciable amount and thus provide the way for what was termed to be a top-heavy central organization. Any centralization in any state is feared.

The second point of general agreement was with respect to the proposed news letter. This was considered to be a step in the right direction as it was thought that it might provide a means of informing the membership and keeping their interest aroused. As a matter of fact, as I listened to the discussion, I was struck chiefly by the relative unconcern about the chances for success despite planning with several key members and it was not possible to whip up a lively discussion, the attitude being pretty well summed up by the remark, "What's all the hooting about?" and attitude of disinterest which of course originally inspired the activity leading to the report itself. As I pondered about what I would say at this meeting, after our Connecticut Society's inconclusive session, I was dismayed by the lack of concern and began to wonder about it.

I then reviewed my six or seven years as an officer in the Connecticut Society and realized that our official contacts with the APA had in those years been limited to requests from Mr. Davies to keep his office up to date with the names of officers in the society. The first step away from this isolation was when the Council invited a member of the affiliate society to sit in during its sessions. This was clearly a move in the right direction.

It next occurred to me that instead of having the representatives sit in as an observer without the right to vote, if he could come as an accredited member with a full right to vote, that would create a sense of unity between the state groups and the national organization and do away with the present unsettled and frankly, hit-or-miss relationship.

With this thought in mind, I got a hold of Mr. Davies yesterday and found from him that under the present Constitution and By-laws, this proposal was out of order, the reason being that qualifications in the state societies vary from those in the APA.

While this particular idea has now to be set aside due to lack of liaison, it still remains as a consequence, not as a representative of the Connecticut Society, but as an outgrowth of my reaction to our meeting.

I would like to recommend, among other items, that the Council itself, or through a committee, study the present status of the affiliated societies and propose specific steps whereby these groups may be brought into functioning cooperation with the national organization. I would also like to see a study made of the affiliate groups to see whether they may serve a special function which may solve to some extent the problem of bigness through decentralization. Too much like Topsy, the affiliate societies have "jes' growed."

DR. MENNINGER.—Our colleagues in the State Hospital System are represented by Dr. M. A. Tarumianz.

DR. TARUMIANZ.—*Mr. Chairman and Members:* I am neither ashamed nor embarrassed to represent state hospitals although the state hospitals have been criticized severely. Pictures are shown in various magazines and movies depicting the hospitals as concentration camps in the United States, but who is responsible for these concentration camps? Certainly not individual members of the Association, but undoubtedly the society as a whole. It is my opinion that the society has depended entirely too much on the work and accomplishment of the Council. I can remember very well the first time I appeared before the Council, and they are all my good friends, the report of my committee was graciously accepted and their desire was to file it, as usual. However, I have some belligerent and aggressive moods at times and I demanded that they should pay more attention than the usual acceptance and filing, so the result of that has been that the Council has been gracious in the past four years and today we are accomplishing something in regard to the standards and policies of the Association in regard to hospitals.

It is pitiful indeed when you consider that The American Psychiatric Association has no actual respect in the community life which one expects of the American College of Surgeons or the American College of Physicians. One sees that for them there is an air of respect on the part of the people, yet we are in our small communities almost a laughing stock. When we speak of The American Psychiatric Association, no one intends to pay any attention because they don't know anything about it. I think the time has come when The American Psychiatric Association should assume its rightful leadership and that can be done only through democratic processes. Keeping various offices for various individuals because of past experiences and past achievements is not sufficient. I think the time has come when regardless of long service and various achievements a man should not assume the responsibility of office unless he can sell the proposition of psychiatry to the people in the right way.

Therefore, I believe in this reorganization and I believe that the reorganization must come from proper and undoubtedly a normal approach. I suggest and I am sure that it is the opinion of most of the men and women members of the Association that we request or pass the resolution demanding that Council provide for the extension of work of the Committee on Reorganization and enlarge the number of members of the committee. That will come in the form of a resolution in a moment.

May I for a moment represent or speak on behalf of the Committee on Standards and Policies. We have been fortunate and I think we are possibly the only committee that has been as fortunate as we in that Council has unanimously approved our standards for mental hospitals and out-patient clinics. At their last meeting, the Council passed the following which was presented to them by the committee:

"It is the opinion of the Committee on Standards and Policies that in view of the activities of various

lay groups that the Association should take immediate and vigorous action as follows:

"First, to set forth the actual status of mental hospital care of patients throughout the country.

"Second, to state the reasons why deficiencies have always existed and have been aggravated by war conditions.

"Third, The American Psychiatric Association should fully support and take immediate steps to give effect to the last three paragraphs in its report."

May I read the three paragraphs? It won't take a minute and it is very necessary and essential for you to know these three paragraphs.

"The committee is in favor of The American Psychiatric Association assuming its rightful leadership and taking positive, aggressive steps in achieving success in its endeavor to teach the American public to consider psychiatry as a legitimate, civic need as long as mental patients are treated in institutions.

"At present the rate is 65¢ per capita per diem and a maximum cost of $2.00 per capita per diem.

"The committee believes The American Psychiatric Association should become more realistic and demand that every state hospital consider a minimum of $5.00 per capita per diem necessary for the care and treatment of the subacute and convalescent cases, and $2.50 per capita per diem for the care of various types of chronic cases."

These are vital issues. You can pass all the resolutions you want to, but unless the APA, through its affiliate societies and other means backs us up to demand from the people the amount necessary to take care of our patients, we still will continue having "concentration camps" in the United States, and there is no other way you can change that situation!

Mr. Chairman, first I would like to present the following resolution: First, to enlarge the special Committee on Reorganization; second, to continue the committee with the request to work with the Program Committee; third, recommend that the committee's proposals for the 1947 meeting be carried out. I move this motion be presented to the society.

PRESIDENT BOWMAN.—This represents a resolution. This is not a regular business session, but it should, I think, be brought before the group and we should get your opinion about it. I am sure the Council wants to know what the opinion of the members is and would like to hear it. Any resolution can be referred to Council and can be referred back at a regular business meeting if necessary. You have heard the resolution. Is there a second to it?

The motion was severally seconded.

PRESIDENT BOWMAN.—I think the third one concludes the idea of the program for next year.

DR. EDWARD STRECKER.—I think it would be more fitting if you presented each resolution separately. There might be difference of opinion about the whole group.

PRESIDENT BOWMAN.—There are three items in the resolution and if there is a question of difference of opinion on certain items, it would save time, I am sure, and be desirable to break it up into the three component parts.

DR. MENNINGER.—Dr. Bowman, I have an objection. I am Chairman of this committee, and I am ably helped by Dr. Bartemeier, Dr. Bennett, Dr. Ackerly and Dr. Ratliff. You can imagine, having heard what you did this afternoon, what kind of a job this was to try and at the same time make some suggestions in change of structure and changes in the functions of the Association about which so many people had so many different views.

We requested that the Council do three things and the Council felt inclined not to do those things, at least pending your opinion, but Council also has no more meetings at this session. Once again this would be deferred until December. Your committee does not wish to continue in this ambiguous and indefinitely postponed rôle. We will be glad to surrender this job to anybody who is willing to take it. We have three times resigned. If you want us to continue, we have to continue with some assurance that we are being backed by the members, so the Council will take us seriously.

PRESIDENT BOWMAN.—I don't see that that has any bearing on the question of voting on three different items. Secondly, the Council may hold a special meeting, and will if there is a reason for it. After you finish voting on this, I have a few points to say myself. I think there has been only one side presented here. No one from the Council has spoken representing the Council and I have a few devastating criticisms about the membership and I think it would do them good to hear it too!

For example, we hear about our affiliated societies and the need for representation and their wanting to vote on the Council. We have 12 affiliated societies and they are invited to sit in on the Council. We get 10 of them here today. Do you get 10 of them coming to the Council meeting? You do not!

Then you get the complaint that the Council is arbitrary and they have nothing to say. I say it's their fault. They don't come to Council meetings. They don't have representatives there and it is unfair to the Council to be criticizing the Council for arbitrary action when the affiliated society doesn't have a representative there. I doubt a single affiliated society has had a member at all of the sessions of the Council.

It seems to me the Council is being made a little bit the scapegoat for a lot of apathy and other qualities on the part of the membership and then when things go wrong, they want to blame the Council for a lot of things which I think, frankly, are their own fault.

They say they don't like the action of the Nominating Committee. Did they get up and nominate and elect three other persons as members of the Council as was their right to do? Nobody has the least objection to their doing it. Nobody is railroading that.

Only 8% of the membership answered the letter of this committee and it seems to me the membership is largely to blame for most of these things, much more so than the Council.

Getting back to these resolutions, it seems to me if there are persons who want to object to one thing and vote for others, that we could very properly take up each one of the three points separately and maybe you all are in favor of all of them. Dr. Tarumianz has expressed his consent for it being done that way. I think Dr. Menninger went over on another tack.

DR. MENNINGER.—The point is, your committee as it now stands has gone as far as it knows how. It wouldn't make any difference whether you increase the committee to 20 or to 50, we don't know what else to do. You would have to call us together and tell us.

PRESIDENT BOWMAN.—I don't see that that raises any objection to considering the three items individually and since Dr. Tarumianz has consented to it, I will ask you to vote on this resolution, each item separately. The first item is to enlarge the Committee on Reorganization. Is there any discussion?

DR. DIETERLE.—I understood when I came, that the members on the floor could talk too. I have been a representative to this organization for 15 years and I have never had a chance to express the thoughts of my group. I would like to mention a few points which haven't been mentioned.

It seems to me desirable to consider that in the selection of the Council, the ages of the people be considered. I would propose that one-third of the Council be men under 45 years of age, one-third between 45 and 55 and the maximum of one-third of men over 55.

PRESIDENT BOWMAN.—You are not speaking on this point. You will have to wait until the resolution is voted on.

A VOICE.—I would like to amend the motion that if the committee is to be enlarged, the new members be men under 45 years of age.

PRESIDENT BOWMAN.—There is an amendment to this first section. Do you wish to accept the amendment, Dr. Tarumianz?

DR. TARUMIANZ.—There might be a fine man of 46. I see no reason why it should be limited to any age. I think there are splendid men of 47 years of age.

PRESIDENT BOWMAN.—We will not ask Dr. Tarumianz how old he is. Do I hear a second to that motion?

The motion was properly seconded.

PRESIDENT BOWMAN.—The amendment is seconded. Is there any further discussion on the amendment?

DR. MYERSON.—As an old guy, I object. Let us consider the mental alertness because there are some men of 46 who are senile and men of 65 who are not.

PRESIDENT BOWMAN.—All those in favor of the amendment that if the committee is enlarged that the members appointed to it be under 45 years of age, please make known by saying "Aye"; opposed, "No." Not carried. The "noes" appear to have it. The amendment is voted down. I guess there are too many men 45 years or more in the house.

DR. JOSEPH WORTIS.—May I propose a similar tentative amendment which may meet the approval? It is an amendment that the Reorganization Committee be enlarged with due regard to adequate representation from various elements in the Association, viz.: Younger men, veterans, divergent psychiatric schools, and so on.

PRESIDENT BOWMAN.—You have heard the amendment.

DR. TARUMIANZ.—I accept the amendment.

The motion was properly seconded.

PRESIDENT BOWMAN.—The amendment is accepted and will be boiled down into the original motion.

May I say one word here which I think is due this Association as explanation; during the past two years when over one-third of you have been in the Army, and have not been available for committee service, we have deliberately not put you on committees and that was not a discrimination against you. I think there are some who have the feeling that that was a question of discrimination. It was my feeling that it was not fair, either to the man in service or to the Association to ask him to serve on a committee or take an appointment when he might be in Japan or somewhere else. The result is that a number of committees during the past year are filled with non-servicemen and that has become a feeling of the serviceman being discriminated against. I wanted to tell you exactly why I did it and it was my feeling that as soon as you came back, then we could call on you and many of us will very gratefully turn over the reins to you. I would not want any of you to feel what I think some of you may have felt that there was discrimination against servicemen. That was the policy and I wanted you to know why. I assume complete responsibility for that myself.

We are ready to vote on the resolution for enlarging the committee. All those in favor of having this committee enlarged make known by saying "Aye"; opposed, "No." It is carried unanimously.

We now have the second part of the resolution that the Reorganization Committee continue to work with the Program Committee.

The motion was properly seconded.

PRESIDENT BOWMAN.—Is there any discussion on that? If not, those in favor make known by saying "Aye"; opposed "No." It is unanimously carried.

The third part, to recommend that the committee's proposals for the 1947 meeting be carried out.

The motion was properly seconded.

DR. HAMILTON.—Gentlemen, there are a great many of you that know me, and I know a great many of you and I know that our younger members are keenly interested in getting to our meetings when they can so as to either present their papers formally or talk about their work informally in the lobbies and check that with their colleagues.

I know that there are younger members who feel aggrieved that I am now the representative of the "self-perpetuating" group who are holding down persons who otherwise would attain a much higher position earlier, but quite aside from that, there are a great many of our members who will be keenly disappointed if this organization decided that there shall be no presentation of work done, work attempted, or work in prospect.

I very earnestly hope, gentlemen, that you may be quite content with the very proper direction that the Special Committee will collaborate with the Program Committee. I should greatly deplore an action by which you tie the hands of our able Program Committee which is a continuing body and forbid them to have nothing on the program except a discussion of our troubles.

PRESIDENT BOWMAN.—I may say that I think there are probably really two questions here. One is whether there shall be some discussion of this problem provided for at the next meeting; or second, whether the entire meeting shall be devoted to it and it is my understanding that the recommendation of the committee was that the entire meeting be devoted to it.

DR. TARUMIANZ.—I don't think it is absolutely essential. We consider that the majority of time should be spent on it.

DR. MYERSON.—On the question, I would like to say this. I agree with Dr. Hamilton that a meeting on rules and regulations only next year, will be a departure that will be deplored when put into effect, by the same men who are at this moment in favor of it. It has been a great habit with us to have papers read and I think that ought to be continued regardless of anything else.

Let us put the resolution something like this, that the Committee on Reorganization and the Program Committee make an equitable arrangement by which sufficient time will be given for both aspects of the activity of the Society.

PRESIDENT BOWMAN.—Do you offer that as an amendment?

DR. MYERSON.—I do.

DR. TARUMIANZ.—It is agreeable to me.

PRESIDENT BOWMAN.—It is accepted then by the proposer of the motion. Is there further discussion of that motion?

DR. FRANK TALLMAN.—I don't represent the Ohio Neurological and Psychiatric Society because one does not exist. I represent a state that has been somewhat in the news and has been by inference mentioned in this meeting. I am speaking to this motion which says that the committee should be continued next year and the program should have a fair amount of study of reorganization because I believe that this organization has a responsibility to the patients in the hospitals, to the doctors, to the superintendents and to the nurses to see to it that never again will it be necessary for newspaper men to call to the attention of the public a situation that so desperately needs correcting. We must not feel that we are martyrs and we must not get defensive. We must not get frightened. We must recognize that people need better care and that if we are wise enough as an organization to recognize it and speak out first and do something about. I hope that it is adopted.

PRESIDENT BOWMAN.—All those in favor of the resolution of equitable division of time between the consideration of our internal organization and the usual scientific program, made known by saying "Aye"; opposed "No." It is unanimously carried. I would like to say a couple more things while I am up here. First, there has been a great deal of criticism expressed here about our public relations and I think the trouble is that you don't know what is going on. That is probably the Council's fault and my fault. For example, certain movies were produced. I had indignant letters from many of you that I should go on the air and give out a statement blasting the movies and so forth. I took the matter up with our Chairman on Public Education. We went into the matter very carefully and I am convinced that had I followed that advice we would have gotten the most beautiful bit of publicity for that film which would have put it in every movie house in the country. You all complained and wanted us to do exactly the opposite of what you wanted to accomplish. I wrote instructions to the Council and I wrote to Eric Johnston on this subject and I had a nice letter about it. We have worked out very cordial relationships which are going to be helpful, but I warn you at the same time that a self-appointed group of psychiatrists setting themselves up to censor these films and utter pronouncements about it may entirely ruin the official relationships of this organization.

That is the sort of thing you don't know about that goes on undercover. We spent a lot of time and effort on it and you think we have done nothing about it. I think we have spent a lot of time and have really done the very best thing and we have certain acknowledgments which I don't care to give out in public and so forth, but which indicate the very excellent job that the Committee on Public Relations has accomplished and the time and effort that the members of this Council have put in. I think Ed Strecker spent half of his time going around with officials of the Army and Navy and many of us went on various tours with the Inspector-General. We made trips back and forth. I have made three flights to Washington and New York within the last two months from San Fran-

cisco and it takes a good deal of time. A little over a year ago, one of those trips took me eight days because you couldn't get planes. Eight days to get to a luncheon at the White House lasting two hours. I think if you check up on what the other members of the Council have been doing, you will discover that perhaps the criticism of the Council should be that it has not been vocal enough and aggressive in telling the Association some of the things it has done.

I am up here to uphold the Council a little bit on this whole thing because I think they have been taking the rap on many things which, really, they shouldn't. Then you want great hospitals and all the other things and our budget is just about balanced with a thousand dollars to the good. How are you going to get that money? The Council has been working on that and you will hear about that tonight. We have very elaborate plans for the organization of the Foundation and getting money for reserve and all of these things. I can tell you that when you hear about it, I am sure you are going to be pleased. So perhaps the Council hasn't tooted its horn quite enough. Perhaps some of these old men over 45 have been a little more active than some of you feel to be the case.

I am not criticizing this meeting. I think it is fine. I think Karl Menninger has done a wonderful job. I would never have been able to get so many people out and get them interested as was the case today and I am terribly pleased because as I said in my speech, apathy was the main cause of the trouble. It is my opinion that the apathy of the members of the Association is the main cause. How many people were here to vote when we had the election Tuesday morning? About one out of five of the members appeared for that election. I could go on indefinitely. Don't make the Council a scapegoat for some of the things which the members themselves are responsible for. You have the authority any time you want it. You can do these things. You could have elected three Council members Tuesday contrary to the recommendations of the Nominating Committee. You can do any of those things any time you want to. It is well for you to realize that. Perhaps a lot of you people will come to the next election who have been passing it by before. We have had too much apathy on the part of the membership and I say that is the fundamental difficulty, and not apathy on the part of Council.

I know some committees haven't been reporting. I have been trying to get reports. I have done the best I could. It is my fault and I am responsible. In good faith I appointed men on committees and some of them haven't met and haven't reported. Remember, that if you get appointed on a committee now, don't let the next president hear you say, "We're too busy and can't report."

I want to thank you all for what I think has been a splendid meeting which is an indication of your great interest in this and I think it is a fine thing for the Association to have a meeting like this.

DR. STRECKER.—I would like to call the attention of everybody to one thing about which we seem to be unanimous and that was the timeliness and the wisdom of your President's address. I move a rising vote of thanks.

The entire assembly arose and applauded.

DR. MENNINGER.—Our committee wishes to point out two things: First, that the comments reported here and that the committee has submitted in evidence are in no criticism of the Association or Council. What we have been trying to do is get you to express opinions. We wanted men on the platform to get up and tell you what they had heard.

The committee sits here and is offering no criticism and taking no blame, but we do want to give one piece of credit that throughout this, we have been constantly supported in every respect by President Karl Bowman.

The meeting adjourned at five-thirty o'clock.

BUSINESS MEETING OF ASSOCIATION

MAY 30, 1946

The meeting was called to order at 9.30 a.m. by the President, Dr. Bowman. The Committee on Resolutions reported as follows through Dr. Whitehorn, Chairman:

Meeting at a time of crisis and confusion we are especially appreciative of the graciousness of our reception and entertainment. We thank our friends in the Chicago area who as individuals, as a community and as organized medical, neurological and psychiatric societies, have contributed to the arrangements for our comfort and for the transaction of our business.

The fellows and members of the Association express their appreciation of the work of the officers and committees carried on through a difficult two-year period since the last meeting. The activities of the President and the work of the Program Committee have come most immediately to our attention. There is particular cause for satisfaction in the demonstration at this Convention that the organizational machinery of the Association, although it may creak in its constitutional joints, is flexibly responsive to the will of its membership. This demonstrated fact increases the sense of participation and of responsibility of all members.

We are conscious of the historic significance of this meeting. It is the first meeting in the second century of the life of this organization. We have just won a great and costly war—costly in fortune, in life and in health. One of the fundamental issues of this great struggle has been the defense of the dignity of the human personality—an issue which especially touches psychiatry.

As member of a professional and scientific association, we are grateful for the psychiatric leader-

ship which has made psychiatry useful in the armed forces who achieved our victory, and we have in this convention taken certain steps designed to sustain and develop such leadership for future contingencies.

The psychiatric needs of our veterans touch our sympathies and demand wise action. For their sake we feel the urgent need for the recruitment and training of more and better psychiatrists, and for the increase and diffusion of psychiatric knowledge, not only in veterans' hospitals and clinics but among all psychiatrists, among all practitioners and teachers of medicine, and in all fields of effort concerned with health.

The patients in mental hospitals have suffered greatly from the war. The means for their care and treatment, inadequate before the war, have been further reduced. Despite the difficulties and frustrations of a hundred years of effort by this Association we record our renewed and resolute determination, as physicians, to see that our patients get the greatest possible benefit from available resources and we pledge our most energetic efforts, in all proper ways as individual citizens and as an organization, to get responsible public authorities to provide the means for bringing the care of our patients to a proper standard and for putting into effective action existing knowledge and insight for the prevention of psychiatric disorders and for the positive improvement of mental health.

Out of the struggle and distress of the war period have come new experiences and new insights into psychodynamic principles. The pressure of urgent events has drawn closer together in active collaboration psychiatrists formerly somewhat divided in doctrine and outlook. Out of such team work and intensive effort have come technical advances in such fields as group psychotherapy and stimulating insights into the constructive potentialities of patients. From these experiences, as represented in this convention, we gain encouragement for the accelerated advancement of psychiatry.

The report was adopted on motion of Dr. Whitehorn, seconded by Dr. George H. Stevenson.

Dr. Hamilton, the incoming President, was escorted to the platform by Drs. Ruggles and Moersch, and introduced by Dr. Bowman, who also presented Dr. Overholser, President-Elect, and Dr. Leo H. Bartemeier, Secretary-Treasurer.

Dr. Overholser announced the officers elected by the Sections as follows:

OFFICERS OF SECTIONS

Military Psychiatry
Dr. Francis J. Braceland, Chairman
Dr. Lauren H. Smith, Secretary

Psychopathology of Childhood
Dr. Reynold A. Jensen, Chairman
Dr. Malcolm J. Farrell, Vice Chairman
Dr. Oscar J. Raeder, Secretary
Executive Committee
Dr. J. Franklin Robinson
Dr. Lauretta Bender

Forensic Psychiatry
Dr. Hervey M. Cleckley, Chairman
Dr. George M. Lott, Vice Chairman
Dr. Richard L. Jenkins, Secretary

Psychoanalysis
Dr. Robert P. Knight, Chairman
Dr. Gregory Zilboorg, Vice Chairman
Dr. Dexter Bullard, Secretary

Convulsive Disorders
Dr. Willard H. Veeder, Chairman
Dr. H. Houston Merritt, Secretary

At the close of the scientific papers, Dr. Bowman called the meeting to order to consider the report of the meeting of the Council held May 30. Dr. Overholser presented the report (see proceedings of Council), which was adopted by acclamation.

The 102nd Annual Meeting was declared by Dr. Bowman closed at 5.15 p.m.

WINFRED OVERHOLSER, M. D.,
Secretary-Treasurer.

REPORT OF THE SECRETARY, 1944-46

The following is a statement of the membership of the American Psychiatric Association as of April 1, 1946:

HONORARY MEMBERS

Former number	20	
Elected 1944	2	
Total		22
Died 1944 *1*, 1945 *2*		3
Present number		19

CORRESPONDING MEMBERS

Former number	10	
Elected 1944	3	
Elected 1945	4	
Total		17
Died		1
Present number		16

LIFE MEMBERS

Former number	87	
Fellows to life members 1944	13	
Fellows to life members 1945	13	
Total		113
Died 1944 *7*, 1945 *8*		15
Present number		98

FELLOWS

Former number	892	
Members to fellows 1944	44	
Members to fellows 1945	32	
Total		968

Fellows to life members 1944....	13	
Fellows to life members 1945....	13	
Resigned 1945	3	
Dropped 1945	3	
Died 1944 *14*, 1945 *12*.....	26	
Total		58
Present number		910

MEMBERS

Former number	1,788	
Associate to member, 1944.....	41	
Associate to member 1945.....	47	
Reinstatements 1944 *1*, 1945 *2*....	3	
Elected 1944	229	
Elected 1945	236	
Total		2,344
Members to fellows 1944.....	44	
Members to fellows 1945.....	32	
Resigned 1944 *3*, 1945 *6*.....	9	
Dropped 1944 *10*, 1945 *13*.....	23	
Died 1944 *10*, 1945 *15*.....	25	
Total		133
Present number		2,211

ASSOCIATE MEMBERS

Former number	315	
Elected 1944	73	
Elected 1945	90	
Total		478
Associate to member 1944.....	41	
Associate to member 1945.....	47	
Resigned 1944	3	
Resigned 1945	1	
Dropped 1944	5	
Dropped 1945	1	
Died 1945	1	
Total		99
Present number		379

TOTAL MEMBERSHIP

Honorary	19
Life Members	98
Corresponding members	16
Fellows	910
Members	2,211
Associate members	379
Total	3,633
Total membership April 1, 1946..	3,633
Total membership April 1, 1944..	3,112

WINFRED OVERHOLSER, M. D.,
Secretary.

REPORT OF THE EXECUTIVE ASSISTANT

Your Executive Assistant herewith submits his annual report: In addition to the financial statements, I should like to present the following facts:

The printing of the membership directory will come in September. The skipping of one year's directory was approved by the Executive Committee because of physicians returning from service requiring new addresses and to include two years of newly elected members.

Your office is in serious need of additional help and of additional office space. I, therefore, request approval of adding one additional employee not to exceed $1,800.00 per year and authority to obtain new office space when and if possible.

Our JOURNAL has had its best year in terms of finances but consideration should be given to planning expansion of its services.

Our membership is growing rapidly resulting in more requests from committees for increased clerical service. The Committee on Membership will need more year round clerical service in order to keep abreast of an ever increasing number of new applications.

The dates of the meeting at the Hotel Pennsylvania in New York for 1947, will be May 19-23.

In closing, may I express appreciation of the devoted services of our Officers, Executive Committee, Council and Committees during the past two difficult years.

AUSTIN M. DAVIES.

COMMENT

THE NATIONAL MENTAL HEALTH ACT

The National Mental Health Act has brought mental illnesses, public provision for which has heretofore been almost entirely a state and local responsibility, within the purview of a national health problem. The medical profession and the public have, at last, become aware of the nature, varieties, and great prevalence of these illnesses, which had previously been neglected in medical education, general medical practice, and public health administration, and are now receiving widespread attention. The Act has been passed for the purpose of bringing to bear on the problem the resources of the national government.

In this review consideration is given to the provisions of the Act, and also to the explanation of the proposed program obtained from governmental and other authoritative sources. The Act is designed to bring into action a national mental health program, prepared by the U. S. Public Health Service and directed to (1) training of personnel, (2) research, and (3) improvement of mental health services. The administration is by the Surgeon General of the Public Health Service, assisted by an Advisory Council, consisting of the Surgeon General, chairman ex officio, and six members appointed by him from "leading medical or scientific authorities who are outstanding in the study, diagnosis, or treatment of psychiatric disorders." The Council are to advise and make recommendations in matters relating to the activities and functions of the Service in the field of mental health. They are authorized to review research projects and educational programs, and to recommend those they consider suitable for support; also to prepare and issue publications approved by the Surgeon General.

Participation of the Council in appointments in important positions such as Director of the Institute or of the program, is not provided by the Act.

Provision is made for a National Mental Health Institute, in or near the District of Columbia. Besides fully equipped laboratories, the Institute will contain a two hundred bed hospital. Voluntary patients may be admitted, and patients transferred from St. Elizabeth's Hospital. The Institute will be manned by a full-time staff and fellows. It is also anticipated that teachers and other prominent scientists will come to the Institute "to pursue special problems and to study the latest findings and methods." The Surgeon General is also authorized to admit for training and instruction such persons as he may designate, and to pay them $10.00 per diem; also, through grants, to provide aid, on the same terms, for such training and instruction in approved public and other nonprofit institutions. These institutions may be aided in improving their teaching facilities and faculties; also in providing advanced education for teaching positions, refresher courses for practicing psychiatrists, and psychiatric training for general medical practitioners. Similar provision may be made for the training of non-medical personnel. Grants-in-aid may, upon request, be made to universities, hospitals, laboratories, and other public or private institutions, or to individuals for research projects recommended by the Council.

Grants-in-aid made to the states may be used for training personnel, for research, and for out-patient and other community services. Public Health Service personnel will, if requested, assist in setting up and improving training facilities and programs at the hospitals. Also demonstrations, described as "model projects" or "pilot plants," may be provided for the purpose of "establishing procedures and standards of care" in hospital and out-patient services. Although not prohibited by the Act, it is evident from references in discussions and committee reports, that Federal funds will not be used in providing hospital treatment for mentally ill patients, "other than those connected with teaching programs and research projects." The inadequacies of the present hospitals were strongly presented as an argument for the passage of the Act, and it was considered that "improvement in hospital treatment is another function of a public mental health

program." It was thought, however, that "this could be done through more competent professional care." There can be no doubt that training of personnel, where it can be provided and utilized in improving hospital service, will be of inestimable value. It seems doubtful, however, that the hospitals in which the need is greatest will be financially able to comply with the requirements for grants-in-aid, or to retain in the service those whose qualifications after training entitle them to advancement in position and compensation. At best, "competent professional care" has a discouraging and often hopeless task in hospitals which are structurally defective, unsanitary, poorly equipped, overcrowded, undermanned, and lacking in ordinary household conveniences and comforts. Added to this, in many places, are political considerations in appointments and administration, and obstructive, detrimental procedures and practices connected with the admission of patients. In some instances the standards are so low as to be a disgrace to our civilization, and, when the population of a state is financially unable to improve them, the only recourse would seem to be aid from the Federal Government.

The place in a comprehensive mental health program of the long established mental health provision made by the states did not apparently receive adequate consideration in the preparation of the Act and the program. In administration, in relations with the states, it would seem appropriate that cooperation should be both ways. The state mental hospitals are the outstanding mental health centers throughout the country. In some states there is no other. Their 600,000 and more patients are said to be "the central problem of psychiatry." Their physicians comprise a large proportion of the qualified psychiatrists of the country. It would seem appropriate, therefore, that the policy of the national mental health program should be directed to conserving, encouraging, cooperating with and utilizing the established mental health resources of the different states to the fullest extent. It seems particularly important that, in the administration of the program, much attention should be given to sound psychiatric direction. When, however, the Act was introduced in Congress, it was provided that grants-in-aid made to the states would be expended in accordance with plans presented by the "State health authority." The Public Health Service, it is said, had "found that a psychiatric clinic connected with the health department can function effectively." The historic development of treatment of mental illnesses and the provision made by the states have, however, been separate and different from those for other forms of illness, and the state health authority is seldom responsible or qualified for administration of the service. In states in which there is a considerable number of hospitals, they are under the supervision or control of a central state authority. When, however, there is only one or a very few hospitals, central supervision or direction may be limited to economic considerations, and the superintendents of the hospitals are responsible for medical administration and direction. It has long been considered that the state hospital was the mental health center of the district which it served, and, as means were provided, the services of the hospitals have been extended into the communities by means of out-patient and social service and other community mental health activities. When, therefore, the situation was explained to the Congress, the designation "State health authority" in the Act was changed to "State mental health authority." This new term is defined in the Act as follows: "the State health authority, except that in the case of any state in which there is a single state agency, other than the state health authority, charged with the responsibility of administering the mental health program of the state, it means such other state agency." The committee of Congress to which the Bill was referred, explained in their report, however, that: "Your Committee does not contemplate by the new definition to include those agencies whose activities in the mental health field are restricted to jurisdiction over mental institutions and their patients." It is evident that this interpretation would mean that in states in which, owing to financial inability, the hospitals had been unable to extend their activities into the communities or, at most, were able to provide only out-patient and social service to patients on visit from the hospitals and still under their jurisdiction,

the planning and administering of grants-in-aid to the states would be the responsibility of the state health authority, who would in most instances be without the necessary qualifications and experience. This would create a new state mental health service separate from that of the hospitals, and contributing to their traditional isolation and ill repute, and prejudicing their further development. In consequence, the interpretation of the committee, and the procedure implied, were vigorously repudiated by Dr. Bowman, president of the American Psychiatric Association. It would seem better in such instances for the Governor of the State to designate a State Hospital Superintendent or other qualified psychiatrist to act as state mental health authority in the program of the U. S. Public Health Service.

The primary purpose of the national mental health program is prevention, and, in service to patients, particular attention will be given to early diagnosis and treatment by means of out-patient clinics. These clinics will in many, perhaps in most, instances be established with the aid of the Public Health Service and administered by the state or local mental health authorities. Important as improvement and expansion of out-patient services are, however, it would be a mistake to expect that they "should pay for themselves by reducing the amount of hospital care necessitated by mental disease." Some patients would, no doubt, be enabled thereby to shorten the period of hospitalization or to avoid it entirely. Many others, however, who now fail to receive needed hospital treatment would be discovered, and the number of admissions would be likely to increase. There will always be many cases in which no treatment obtainable from private practitioners or out-patient service will replace the organized treatment and measures for readjustment to home and family relationships which are provided by an adequate mental hospital. Even the present hospitals, notwithstanding their deplorable inadequacies, provide a far better service than is generally known, or represented in sensational descriptions in the public press and in fictional literature. The large majority of those employed in them are estimable, conscientious people who, in the face of most discouraging conditions, are performing extremely delicate and difficult tasks with devotion and, in most instances, with remarkable capability. Consideration should be given to the return to their families and the communities, recovered or sufficiently improved, of half the patients admitted to the hospitals; also to the treatment to which many patients were subjected before their admission, or before hospitals for the mentally ill were established.

It is evidently intended that the national mental health program should be a cooperative rather than an independent undertaking. There is little that is mandatory in the Act. The Surgeon General of the Public Health Service, in his remarks at a hearing, said: "I am in agreement with the mental health authorities who see as a solution of these problems an over-all national mental health program, sponsored by the Federal Government—but requiring for its fulfillment the concentrated effort of state and local governments, and private institutions and individuals." This may be regarded as a challenge and a plea. The solution of mental health problems is a long-term undertaking and by no means simple. The assumption by the national government of participation in the problem on a national scale, in no degree diminishes the responsibilities of the state and local authorities. It continues to be the duty and privilege of the people of the states and the local communities to make adequate provision for the treatment of their mentally ill. No aid for this purpose should be necessary from the Federal Government, except for states in which the population is manifestly unable to bear the great expense. The passage of the National Mental Health Act emphasizes, however, the universally recognized need for a revision of the mental health policy and program of the states and their local subdivisions, and the accomplishment, without delay, of the much needed and long neglected improvement of the mental hospitals, and of the procedures and practices to which the mentally ill are subjected in obtaining access to them. This advancement is the most important contribution that could be made toward taking full advantage of the service to the mental health of the people of the country obtainable by cooperation in the

administration of the national mental health program. Only by making the hospitals more adequate can the antipathy of the public and the reluctance with which psychiatric service is accepted be overcome. Nor does experience indicate that the much needed psychiatric service, for which provision is made at some of the general hospitals, will relieve the necessity for the great public mental hospitals. Mental illnesses which require hospital treatment are, in most instances, protracted, and require longer periods and a more highly organized and extensive provision for treatment than can be properly undertaken by an urban general hospital. The enlightenment and support of the general public must be gained in order to improve the public provision for the mentally ill, and cooperation in the public education program contemplated by the Public Health Service provides means of accomplishing this.

The passage of the National Mental Health Act places a particular responsibility and opportunity before the well qualified psychiatrists of the country, individually and through their institutions and organizations. In relation to the expanding needs, the number of these psychiatrists is far too small. Their active interest and participation in the national mental health program, especially in its relations with the states and with educational and research undertakings, will contribute much to sound development. The very difficulties and problems which the national mental health program is designed to overcome will prove troublesome in obtaining the qualified personnel and favorable conditions needed for the inauguration and effective operation of the program. Nor does the record of the Federal Government in mental health administration indicate that, any more than the states, it can be depended upon to furnish model demonstrations and examples, or effective support to the administration of the program. This is illustrated by a recent reference to St. Elizabeth's Hospital in the Journal of the American Medical Association. This hospital is outstanding for service and for educational and scientific activities, and is designated in the Mental Health Act as the hospital which will have close relations with the new National Mental Health Institute. According to the Journal reference, however, it is, by reason of a change in its administrative organization by which it is deprived of its board of trustees of which the Surgeons General of the Army, Navy, and Public Health Service, and prominent citizens of the District of Columbia, were members, in danger of being changed "from one of the nation's leading mental hospitals to just an ordinary county insane asylum." It should be realized also that the demand for psychiatric service is now so pressing that, in the present state of psychiatric education, psychiatry in general medical practice, and the understanding of mental illness and its treatment by the public, the temptation, and even the necessity in some instances, of accepting compromises and inferior standards is very great. It is also necessary to evaluate and discriminate among the paths along which psychiatric thought and practice are advancing. Psychiatry was formerly referred to as the Cinderella or stepchild of medicine. Now she is being given full status in the family circle. General medicine, however, seems reluctant to include with the stepchild, responsibility for the "central problem of psychiatry," and camouflages the identity of the child by means of new names and formulations. The psychiatrists of the country and their institutions and organizations, notably The American Psychiatric Association, can render a valuable service by participating and cooperating actively in the maintenance of sound psychiatric principles and standards, and in enabling the existing mental health agencies and their staffs to have the place in the national mental health program for which their great experience and organized resources eminently qualify them.

WM. L. RUSSELL, M. D.

"IT CAN'T HAPPEN HERE!"

The care of the mentally ill has from the beginning been considered a proper function of the state. Some states, to be sure, have discharged this responsibility poorly; appropriations have been niggardly; and partisan politics has not infrequently outweighed the

welfare of the patients. The average has been none too high, and only a few states have been outstanding in enlightened and scientific dealing with mental illness in keeping with the practices of modern medicine.

There are those who have cried aloud for Federal aid and control, on the assumption that the Federal government is possessed not only of greater funds but of greater wisdom and a greater willingness to utilize medical advice on medical problems. Is the latter assumption valid? Recent developments in Washington warrant skepticism.

Saint Elizabeths Hospital, established by Dorothea Lynde Dix in 1855 for the care of psychiatric cases from the Army and Navy, has long been recognized as a leader in its field. Its standards of care have been high, and its civilian atmosphere has been an advantage in dealing with military patients, being reflected in a high recovery rate. During World War II, over 5600 Naval personnel passed through it as patients, a large majority being discharged as recovered.

In the Spring of 1945, the powerful Bureau of the Budget, as represented by one of its lesser luminaries, concluded, without medical advice, without consultation with either the Navy or the hospital, and solely by virtue of its own omniscience, that the institution should be reduced in size; the simplest way, it concluded, was to stop Naval admissions and have the ex-service patients removed. Letters were prepared for the President's signature, and signed and dispatched, instructing the Navy to send its patients elsewhere and directing the Federal Security Agency to arrange with the Veterans' Administration to have eligible servicemen removed to veterans' hospitals.

In a press interview shortly thereafter, The Director of the Budget is reported to have said, "We simply feel on the basis of what we know about the development of mental hospitals in this country that Saint Elizabeths cannot continue to increase indefinitely, and we feel it's plenty large enough." Asked where the Navy should care for its psychotics, he replied "We weren't concerned about that." Whether the Navy load would fall as the fighting ceased, whether the Naval patients would be as well or conveniently cared for, whether the radical change would be good or bad for the hospital—these considerations were of no moment. The budgeteers know all! Eminent experts called in by the Navy and by the Federal Security Agency advised against a change in policy, but the Budget decisions are like the laws of the Medes and Persians.

The step which might have been reversed so long as it remained a presidential "directive," was made more nearly irrevocable when the President embodied the change in Reorganization Plan Number Three on May 16. The American Psychiatric Association, through its Council, officially opposed the change, and Drs. Whitehorn and Chapman presented to the Committees of the House and Senate strong reasons why the legislation should not be enacted. The House, indeed, thanks largely to a physician member, Dr. Walter Judd of Minneapolis, overwhelmingly voted down the proposal; but the Senate, despite Senator Ferguson's strong opposition, passed the Plan by a margin of only seven votes. As the veto of both houses was necessary to prevent passage, the plan became law. The Navy will hereafter use the Public Health Service Hospital at Fort Worth, Texas, reimbursing the Public Health Service at a rate slightly more than twice the 1946 per capita rate of Saint Elizabeths Hospital.

The point at issue is not primarily whether the Navy patients will be better, or as well, cared for at Fort Worth. That hospital, located several miles from the city and far from medical centers, was planned for non-psychotic drug addicts, and it is relatively inaccessible except by air to either the west or east coast. The Navy group, too, will not have the benefit of association with civilian patients or with the traditions of an institution which for nearly a century has dealt with millitary and civilian psychotics in a more than satisfactory way. The most serious aspect of the situation is the readiness of the Federal government, through a non-medical bureau, and without even medical advice, to make a radical change in medical procedures without consultation with the medical authorities involved and without primary regard for the welfare of the mentally ill wards of the government.

It *can* happen here!

NEWS AND NOTES

THE PROGRAM FOR THE 1947 MEETING

This statement by the Committee on Program is addressed to *all the members* of our Association regardless of whether they wish to be represented on the program or are, at present, certain of attending the meeting. The committee hopes most sincerely that the present statement will actually be read by all the members. Each year at about this time, the committee issues a statement which is published in the JOURNAL. Just what the fate of these statements ultimately turns out to be and to what extent they reach the membership is something that we have no way of estimating. Judging by the inquiries that the chairman has received in previous years long after the statements were published, it would seem that a large proportion of the members has not even been aware of the fact that such a statement has been published. It is different this year, and we wish to stress the fact that all the members must be acquainted with the plans that the Program Committee is organizing this year. Most of you will remember that on Wednesday of the 1946 meeting at a session arranged for the whole Association, the question of more active participation by the membership at large was taken up; and the Program Committee was instructed to cooperate with the special Re-organization Committee in attempting to make such general participation possible. Earlier this fall a meeting was held between representatives of the Program Committee and of the special committee, and a tentative plan was worked out which is to be presented to the Program Committee as a whole when it meets in Mid-December and then to the Council for their approval. This plan calls for extending the duration of the 1947 meeting to 5 whole days. One day and a half of this period will be set aside for meetings in which the entire membership will participate. We wish to emphasize the term "participate" for the subjects to be discussed will be those in which all members are interested; and in order to reach conclusions that are actually representative of the needs and attitudes of our members, it is of the utmost importance that all of you have an opportunity to express your views on these subjects. Such matters as public relationships, medical education, personal interrelationships, hospital administration, social and legal aspects of psychiatry, and so forth, should be freely discussed, not on the basis of presentations of papers by a few selected speakers, but through a general discussion from the floor. Whatever conclusions will be reached at that time should actually represent the opinions of the majority and not isolated ideas of a few members.

The rest of the time will be given over to the usual proceedings of the Association, a major portion of the time being taken up by the presentation of scientific material. Obviously, this will afford somewhat less time than usual for the scientific papers and, therefore, the committee urges very seriously that all those members who wish to submit scientific papers be sure to send in their abstracts to the chairman or any other member of the Program Committee as soon as possible and *before the first of December.* We will, of course, decide on the presentation of the papers both on the basis of the importance of the material presented and the timeliness of the subject discussed. We can all agree that at the present time certain subjects stand out as of particular importance to the Association and society in general. The problem of extramural and particularly out-patient psychiatry, the subject of veteran rehabilitation, the rôle that psychiatry should play in medical education, the present day status of certain therapeutic procedures, and research investigations into the causes and nature of personality disturbances are just a few examples of the type of material that should be given priority at this meeting.

At the Mid-December meeting of the Program Committee, we should have most of the requests for presentation of papers so that

we can come to a preliminary decision as to the composition of the program. Some few papers may be accepted after that if there is a place on the program, but chances are that such places will not be too numerous. The abstracts that we wish to have at this time need not be final. On the other hand, they must be fairly representative of the general trend of the paper so as to afford the Program Committee a good basis for evaluating the paper. The abstract should consist of one to two typewritten pages and need not include exact results or conclusions. Directly after the meeting, the chairman of the Program Committee will communicate with the authors of the papers concerning the decision that has been reached by the committee.

WILLIAM MALAMUD, M. D.,
Chairman, Program Committee.

RESIDENCY IN NEUROPSYCHIATRY, VETERANS ADMINISTRATION, LOS ANGELES.—The resident training program in neuropsychiatry at the Veterans Administration Center began August 15, 1946. The program is designed to prepare the resident for the examination of the American Board of Psychiatry and Neurology. Faculty members of the medical schools of University of Southern California and College of Medical Evangelists are participating and the program includes courses in psychopathology, clinical psychiatry, neuropathology and clinical neurology, together with staff conferences and ward rounds with consultants.

Vacancies are available for veterans who desire specialized training in neuropsychiatry. Address all inquiries to Dr. Samuel D. Ingham, Chairman of the Deans' Subcommittee on Neuropsychiatry, 727 West Seventh Street, Los Angeles 14, California; or to the Director of Clinical Psychiatry, Neuropsychiatric Hospital, Veterans Administration Center, Los Angeles 25, California.

NORTH PACIFIC SOCIETY OF NEUROLOGY AND PSYCHIATRY.—The annual meeting of the Society was held in Portland, Oregon, September 20-21, 1946. The scientific program was divided into two sessions on both days. The second day the entire group motored to Timberline Lodge on Mt. Hood. There, following the scientific sessions, a very enjoyable social evening was spent. There were two highlights of the meeting: first, a panel discussion on "Recent Advances in the Convulsive Disorders"; second, a paper by Dr. Kenneth Swan, professor of ophthalmology at the University of Oregon Medical School, on "Contemporary Concepts of Papilledema."

Officers for the coming year are: President, Dr. Ralph M. Stolzheise, Seattle, Washington; Vice-President, Dr. Frank Turnbull, Vancouver, B. C.; Secretary-Treasurer, Dr. Herman A. Dickel, Portland, Oregon. The three members of the Executive Committee are: Dr. H. Ryle Lewis of Spokane, Washington; Dr. Gordon Hutton, Vancouver, B. C.; Dr. Merle Margason of Portland, Oregon.

The next meeting of the Society will be in Seattle late in March, 1947.

NEWS LETTER.—President Hamilton draws the attention of the membership to the fact that the Executive Committee has under immediate consideration a subject that was raised at the last meeting of the Association, namely the publication of a news letter in addition to the JOURNAL. Comments from our membership to any of the five committeemen at this moment will be most timely, and most welcome.

PENNSYLVANIA PSYCHIATRIC SOCIETY.—At the eighth annual dinner meeting of the Pennsylvania Psychiatric Society which took place at The Barclay, in Philadelphia, October 10, 1946, former U. S. Supreme Court Justice Owen J. Roberts spoke on "What the Layman Can Do About Mental Illness."

The following officers were elected to serve for the year 1946-1947: President, Charles H. Henninger, M. D., Pittsburgh; President-Elect, LeRoy M. A. Maeder, M. D., Philadelphia; Secretary-Treasurer, Philip Q. Roche, M. D., Philadelphia.

Councillors—For two years: Samuel B. Hadden, M. D., Philadelphia; Harold L. Mitchell, M. D., Pittsburgh; Howard K. Petry, M. D., Harrisburg. For one year:

Bernard J. Alpers, M. D., Philadelphia; Kenneth E. Appel, M. D., Philadelphia; Thomas A. Rutherford, M. D., Waymart; Cornelius C. Wholey, M. D., Pittsburgh.

Auditors—For three years: Elmer V. Eyman, M. D., Philadelphia. For two years: Robert J. Phifer, M. D., Woodville. For one year: Harry F. Hoffman, M. D., Allentown.

THE HELEN PUTNAM FELLOWSHIP FOR ADVANCED RESEARCH IN GENETICS OR MENTAL HEALTH.—Radcliffe College, Cambridge, Mass., invites applications for this fellowship. The Committee on Award would be interested in receiving nominations immediately from eligible women scholars who have research in progress in the field of genetics or of mental health, broadly defined.

The fellowship will pay a stipend of $2,000 for a term of eleven months from October 1, 1947, with the possibility of a renewal for a similar period. All normal laboratory facilities will be provided to the holder and each fellow will be assigned room and board (at cost) in one of the Radcliffe graduate houses and will be expected to be in residence during the tenure of the fellowship.

In general, the committee will limit its choice to mature women scholars who have gained their doctorate or who possess equivalent qualifications. Appointments will be limited to those candidates who can submit a plan of research that is already under way and proofs of progress may be required by the committee.

Applications for the award should be submitted to Radcliffe College not later than April 1, 1947, and the announcement of the appointment to the fellowship will be made on or about May 1, 1947. Application forms may be secured by addressing: Committee on the Helen Putnam Fellowship for Advanced Research, Radcliffe College, Cambridge 38, Massachusetts.

THE CENTRAL NEUROPSYCHIATRIC ASSOCIATION.—The 25th anniversary meeting of the Central Neuropsychiatric Association was held in Denver, October 4 and 5, 1946. The programs of the Association have always been limited to presentations by the members in the host city, and an excellent scientific program was presented by the Denver and Colorado members and their colleagues.

The next meeting will be held in Galveston in October 1947. Officers elected for the coming year are: Dr. Clarence E. Van Epps, Iowa City, President; Dr. Jack R. Ewalt, Galveston, Vice-president; Dr. William C. Menninger, Topeka, Secretary-Treasurer; and Dr. A. E. Bennett, Omaha, Counselor.

LOS ANGELES PSYCHIATRIC SERVICE.—Applications are being received for the post of psychiatric-director for an adult community mental hygiene clinic. Applicant must be a diplomate in psychiatry and have administrative experience. Salary is in accordance with qualifications. For further information, apply to the Director, Los Angeles Psychiatric Service, 507 South Westlake Avenue, Los Angeles 5, Calif.

SCHOOL PSYCHOLOGIST, NEW YORK CITY.—Applications are being received for the position of school psychologist New York City, and must be filed before February 6, 1947. The week of February 24, 1947, has been set aside for written tests and applicants must meet the eligibility requirements unless entitled to an extension under the Military Leave Regulations of the Board of Education before September 8, 1947.

Application fee is $4.25; salary $2,398 to $4,654 by 14 annual increments conditioned upon satisfactory service. At the present time there is also a cost-of-living bonus of $350 per annum. Additional information will be supplied by Mr. Joseph Jabionower, Chairman, Committee on Licenses in Child Guidance, Board of Education, 110 Livingston Street, Brooklyn 2, N. Y.

SEVENTH CONFERENCE ON SCIENCE, PHILOSOPHY AND RELIGION.—The 1946 conference was held at the University of Chicago, September 9-11, 1946. About 60 papers were presented during the meetings, and as in previous years these papers will be published later in the annual volume.

The permanent headquarters of the conference is at 3080 Broadway, New York 27, New York.

SOUTHERN PSYCHIATRIC ASSOCIATION.—The annual meeting of the Southern Psychiatric Association was held at the Jefferson Hotel, Richmond, Virginia, October 7-8, 1946. On the first day, morning, afternoon and evening sessions were held, and on the second day, morning and afternoon sessions.

The excellent record of this society, an affiliate of The American Psychiatric Association, has been due in large part to the interest and activity of its organizer, Secretary-Treasurer Newdigate M. Owensby of Atlanta.

INSTITUTE OF GENERAL SEMANTICS, NEW HEADQUARTERS.—The Institute announces that it has established new headquarters at Lakeville, Connecticut, and that the eighth annual winter seminar will be conducted at that place December 27, 1946 to January 2, 1947.

This removal from Chicago was made necessary by the housing and hotel shortages in that city which made it difficult for students attending training courses to find living accommodation. While the new location is temporary, it is possible that it may become the permanent home of the Institute.

CONGRESS OF CORRECTION, DETROIT, 1946.—The seventy-sixth annual meeting of the American Prison Association was held at the Hotel Statler, Detroit, October 4-8, 1946. Representatives of the principal American prisons were in attendance as well as two from Puerto Rico and three from the Canadian penitentiary system. General meetings were held in the mornings and evenings and sectional meetings in the afternoons. Every aspect of the prison problem seemed to be well covered with the exception of the psychiatric which was represented by only two papers, one by Dr. H. C. Solomon on "Understanding the Psychopath" and one by Dr. R. H. Felix on "Mental Health Approach to Juvenile Delinquency." Outstanding personalities at the congress were Edward R. Cass and Austin McCormack of New York, Sanford Bates of New Jersey, James V. Bennett of the Federal Prison System, Garrett Heyns of Michigan and Prof. W. C. Reckless of Ohio State University and Prof. A. E. Wood of the University of Michigan. From a psychiatric standpoint, the most interesting session was that held on Tuesday afternoon, October 8, consisting of a symposium on "Psychiatry and the Law" during which representative lawyers and some psychiatrists outlined their various view-points. It was a bit of a disappointment to a prison psychiatrist not to hear any contributions or discussions on criminal psychiatry from men like Freedman or Pescor. Generally speaking, however, the papers presented at the congress were interesting and instructive. In the opinion of this reviewer the two finest addresses were given by Judge William B. McKesson of California on "New Agencies for Treating Youth Offenders" and Warden James A. Johnston of Alcatraz Penitentiary, on "Problems at a Maximum Security Institution."

CANADIAN PENAL CONGRESS, WINDSOR, 1946.—The fourth annual meeting of the Canadian Penal Association was held at the Prince Edward Hotel, Windsor, Ontario, October 6-9, 1946. It was presided over by Major J. A. Edmison, K. C., executive secretary of the Prisoners' Rehabilitation Association. At this meeting the recently appointed Commissioner of Canadian Penitentiaries, Major-General R. B. Gibson outlined his ideas of penitentiary administration. The English Borstal System for young offenders was described by Rev. R. G. Burgoyne; penitentiary personnel by Prof. C. W. Topping of the University of British Columbia; juvenile court procedure by Judge F. A. E. Hamilton of Winnipeg; and provincial jails and adult reformatories by Dr. Harry M. Cassidy and Dr. Jaffray of the University of Toronto. Prison chaplain problems were outlined by Rev. R. G. Forneret of St. Vincent de Paul Penitentiary, Montreal and Rev. E. J. Tucker of Toronto. The special address at the congress dinner on Monday October 7, was delivered by Dr. B. K. Sandwell, editor of "Saturday Night."

THE ROCKEFELLER FOUNDATION ANNUAL REPORT, 1945.—In his report as director of the medical sciences, Dr. Alan Gregg says: "It is surprising that it has taken so long to recognize that the structure of man's per-

sonality is no more indestructible than his obviously fragile body. Now that this recognition has made possible a really scientific approach to the problem of human relations, it seems more than ever wise to continue support for psychiatry."

Total appropriations of the Foundation during 1945 were $11,330,689. Total appropriations for the medical sciences were $1,751,850.

Support of psychiatry by the Rockefeller Foundation was represented by grants during the years as follows:

1. Washington University (neurophysiology)	$ 40,000
2. Karolinski Institute (neurophysiology.	45,000
3. University of Edinburgh (neurosurgery, neurology, psychiatry)	20,750
4. Harvard Medical School (psychiatry).	112,000
5. University of Tennessee (psychiatry)..	15,000
6. Vanderbilt University School of Medicine (psychiatry)	15,000
7. University of Illinois (psychiatry).....	115,000
8. American Psychiatric Association (psychiatric nursing)	32,000
9. Columbia University (psychiatry).....	24,000
These grants, running for periods ranging from 1 to 4½ years, total.....	$418,750

MENTAL HYGIENE APPOINTMENTS, OHIO.—The division of mental hygiene, Department of Public Welfare, Ohio, announces three recent appointments. Dr. Mark W. Garry, formerly director of the tuberculosis division in the Ohio Department of Health, becomes Chief of Tuberculosis and Internal Medicine in which capacity he will be in charge of tuberculosis control and treatment in the institutions and will be responsible for organizing the medical program in mental hospitals.

Miss Anna T. Lownie, M. A., R. N., has been appointed Chief of Nursing Service and Education. Prior to joining the Ohio staff, Miss Lownie was director of nursing and of the Post-graduate School of Psychiatric Nursing at Menninger Sanitarium, Topeka.

Wallace C. Fotheringham, M. A., who was a professor at Muskingham College, Ohio, has been appointed Chief of Institutional Personnel Training, and his major responsibility is the organization of training courses for psychiatric aides in the institutions of the division of mental hygiene.

PRIZE CONTEST.—The Institute for Religious and Social Studies is offering a first prize of $2,500 for a manuscript of between 40,000 and 70,000 words dealing with situations involving problems of group adjustment growing out of those tensions which may arise from differences of race, religion, nationality or socio-economic interests. The author of the second best manuscript will be awarded $500. The closing date of the contest will be October 31, 1947. For further information write to the Institute for Religious and Social Studies Prize Contest, 3080 Broadway, New York 27, N. Y.

LASKER AWARDS, 1946.—At the annual meeting of the National Committee for Mental Hygiene held in New York on October 31, 1946, Dr. James R. Angell conferred a Lasker Award on Dr. W. Horsley Gantt, Johns Hopkins School of Medicine, Baltimore, for experimental investigation into behavior deviation. Dr. Jules Masserman, division of psychiatry, University of Chicago, received honorable mention. Rev. D. R. Sharpe, President, Ohio Mental Hygiene Association, and Walter Lerch, reporter on the Cleveland Press, were recipients of a joint award conferred by Dr. Samuel W. Hamilton for their efforts to improve hospital care for mental patients. Albert Deutsch, feature writer on P. M., received honorable mention.

AMERICAN PHYSICIANS' LITERARY GUILD AWARD.—At the meeting of the American Medical Association in San Francisco in July 1946, was formed the American Psysicians' Literary Guild, one purpose of which is to recognize outstanding literary contributions by members of the medical profession.

The first prize authorized by the Guild has been awarded to Dr. James A. Brussell, assistant director Willard (N. Y.) State Hospital, for his novel "Buried by Beans." Dr. Brussell also received the Guild's second and third prizes for his short stories, "Time for Marvin" and "College Rackets."

Dr. Brussell has been active in the New York State hospital service for the past

15 years and served overseas during the recent war.

LECTURES ON MENTAL HYGIENE, PHILADELPHIA.—The mental hygiene committee of the Philadelphia County Medical Society conducted a third series of lectures open to the public on the mental hygiene of childhood, adolescence, family and school relationships. The series consisted of 7 weekly lectures, commencing November 4, 1946. As an instrument of public education these lectures have proved very useful and have been exceptionally well attended.

BOOK REVIEWS

THE NEUROLOGIST'S POINT OF VIEW. By *I. S. Wechsler, M. D.* (New York: L. B. Fischer, 1946.)

This book is difficult to review partly because of its wide range of subject, but partly also because one finds in it, in many matters, a sense of indecision. This lack of sureness seems to emerge perhaps because the author has not quite determined on his mode of attack: will it be sociological, historical, neurological, or should these clearer roads be made less passable by being blocked by Freudian neologisms, in order thereby to become psychiatrically more respectable and up-to-date thoroughfares? The essay on "nervousness and the Jew" is a case in point. Here is a sound examination of the many factors which have built the Jewish character, and produced naturally enough therein a paranoid trend, a sense of suspicion of motives, an apprehension of danger, an unexpected aggressiveness rooted often in insecurity. Majority pressure has made for a sharpening of the sharp Jewish mind and has stimulated his genius for industry and learning to the point whereby he becomes sourly regarded by his non-Jewish competitors. In wartime the same sense of urgency is *vis a tergo* to the rest of mankind, but for the Jew, in constant minority, there exists forever a sort of war, urging him forward to the limit of his physical and mental powers. The author speaks of "family closeness" also as an agent productive of individual nervousness, and certainly the matriarchal authority must often retard the maturing processes in the oncoming generation, but little is said of the effect of inbreeding which in every segregated community of which we know gives rise to disabling nervous sensitiveness and instability.

The rôle played by religious ritual in draining away unhappiness out of which obsessions might crystallize, is excellently described and phrased but the statement that "in the Jew 'realism' is exalted to the reduction of the 'ideal'" is not easily understood especially when regarded through the author's words that the Jew "has never really come to accept Death"—surely the most redoubtable and tangibly real fact of Life. Perhaps as a race they have been schooled never to take "no" for an answer; if there be no way through, there must be a way round,—even Death! But is not this very refusal a nervous straining after an ideal, a fantasy power, which in them is in this book deprecated. And a reviewer might be allowed to remember the "God-intoxicated" Spinoza, the poetry of Job and St. John, the divine afflatus of Isaiah and Ezekiel, the stubborn idealism of Saul of Tarsus, and the overwhelming personality of The Ideal Man. As has been already suggested this chapter is less happy when the straighter avenues are deserted for the more involved and circuitous bypaths of psychoanalytic theorizing. These lead to no clear goal of explanation, and treading them in search of understanding the causes of anti-Semitism leads merely to the author's conclusion "that anti-Semitism is a world-neurosis," a jejune assertion indeed which would explain something not understood by something entirely un-understandable.

Indeed throughout the book one finds the author constantly taking away with one hand, what he has given with the other, statements of strength followed by demurrer. We are told that "much that passes for modern psychology and psychiatry will turn out to be plain gibberish." Yet Sigmund Freud "created a rich vocabulary, almost a whole language; . . . . . if Freud had done nothing but contribute a rich language, psychiatry would have reason to be very grateful to him." Now the obscurity of much modern psychiatric writing is rooted in this invention of new terms for old ideas, and such inventions are not to be found only in Freudian literature; they buttressed phrenology for 75 years in the last century, which then of fine repute proved to be the misdirected offspring of Gall, another man of distinguished and powerful imagination.

Today the Bar Associations are courageously attacking the hydra of lawyers' jargon which like all such growths are really weapons in a conspiracy against the public, a secret and priestly tongue. Alfred North Whitehead is the most profound thinker in our language, admittedly the richest tongue ever known; his ideas make stiff thinking but his words easy reading. Voltaire, Janet, Locke, Berkeley and Hume succeeded in being deeply intelligible in their own languages—and even Plato spoke Greek.

There is here, however, a good appraisal of Freud, as an observer, an innovator with a poet's gift of fantasy, though the reviewer would not agree that the "finest concept evolved by him is that of sublimation," but would direct attention rather to Freud's demonstration of the phylogeny of personality, to his discovery of the developmental stratification of the emotional life. This unifying contribution to anthropology and sociology illuminates psychiatric material and gives intelligible reasons for dynamic drives apparently unreasonable, such as compulsions and phobias and the sneaking beliefs or hopes of "magic" which all of us latently or blatantly harbour.

The most rewarding essay in this interesting and stimulating book is that entitled "The Problem of mental disorders—the neurologist's point of view." This is written in wise balance and is earnest, eloquent and clear. Possibly its optimism would be heightened had the author been able then to indicate what we know now of hypothalamic function in the control of not only metabolic and autonomic rhythm, but of its control of emotional rhythm as well. This essay was written twelve

years ago before the introduction of so-called "shock" therapy, with all its implications of the balance in unstable equilibrium of the pressor and depressor streams of energy. However, the author is seen to look from Pisgah to the land of promise, and is contemporaneous by his prophetic adumbration. Perhaps less happy is his description of Behaviorism as "the lusty offspring of" . . . . the work . . . . "of Pavloff." The author would, I am sure, be the first to agree that that sect is today but a memory, hard to recall. However, this book shows well and amply the many coloured rays glancing off "the bright shield of expectation" which psychiatry carries; it does this the more convincingly perhaps if often the author seems here and there to contradict his own opinions;—our present embryonic state is by this very fact made clearer and deeper and by a subtle ironic humour which savours all his writing.

The Essays on Moses, and on Maimonides the Physician, are models of acute interesting writing, and the reviewer can from his own observation endorse the fine picture drawn of colonization in Palestine.

Medicine has always been called a Learned Profession. Much of our writing has made us appear more like a union of slick gadgeteers. Here is a book to help retrieve our good name, for it is wise, erudite, humourous, and interesting; it was Whitehead who has pointed out that the most important quality of any proposition is not that it must be true, but that it must be interesting and exciting.

FOSTER KENNEDY, M. D.
New York.

A PSYCHIATRIC PRIMER FOR THE VETERAN'S FAMILY AND FRIENDS. By *Alexander G. Dumas, M. D.* and *Grace Keen.* (Minneapolis: The University of Minnesota Press, 1945.)

This book is written for a lay audience and gives an unusually sympathetic and helpful picture of the many adjustments that must be made by the physically and psychiatrically disabled veteran. It is presented as a story of five women, the problems they face and to which they adjust upon the return of their men. Three large categories of veterans are considered: the uninjured, the physically handicapped and the psychiatrically disabled. Wide clinical data are drawn into the manuscript by way of ample illustration of types of handicaps. The material on the physically handicapped is particularly well presented and contains valuable advice as to the psychologic handling of such disabled individuals. The material on the psychoneuroses is well presented for a lay audience but might have contained somewhat more dynamic interpretation. The main handicap of the book is that much of the subject matter is presented categorically with little documentation as to its source. This gives a somewhat novelistic quality to a manuscript which is otherwise excellent and which should find a large audience.

THOMAS A. C. RENNIE, M. D.,
Cornell Medical College.

EMOTIONAL PROBLEMS OF LIVING (Avoiding the Neurotic Pattern). By *O. Spurgeon English, M. D.*, and *Gerald H. J. Pearson, M. C.* (New York: W. W. Norton & Company, Inc., 1945.)

This book has been written with painstaking care to see that all points are thoroughly elaborated and well illustrated by excellent and relevant case material. It is concerned with the promotion and maintenance of emotional health and balance at all age levels. It is psychoanalytic and the authors have succeeded in making the text readable and understandable. It should be the answer to laymen, medical students, physicians and all others who are interested in understanding more fully what is meant by dynamic psychiatry and what psychoanalytic teaching has contributed to modern psychiatry. The physician and pediatrician may see what constitutes the average or normal psychosexual development of the individual. The various levels of libidinous development are presented in detail to show that reasonable gratification and a feeling of security at each level must be achieved before the individual can successfully grow and progress. Practical suggestions to assist the parents and the growing personality are given. The problems of adolescence, work, and marriage are dealt with in a commen-sense fashion. The mental hygiene of adult life including retirement and reaction to advancing years are presented. The final chapter on treatment is a concise review of the modern methods of reeducation and psychotherapy. The book is recommended to all students of medicine and psychiatry.

JAMES H. WALL, M. D.,
New York Hospital-Westchester Division
White Plains, N. Y.

THE CLINICAL APPLICATION OF THE RORSCHACH TEST. Second Edition. By *Ruth Bochner* and *Florence Halpern.* (New York: Grune & Stratton, 1945.)

This is a second edition of the book which was reviewed in the 1942 issue of this JOURNAL. Chapters have been added with Rorschach records of alcoholics and individuals who fit into the broad category of "behavior problems." The other chapters also have been filled out with many new records. The book continues to be a brief, easily understandable introduction to the clinical use of the Rorschach method of personality evaluation.

The introductory chapters are little changed from the previous edition. They cover a description of the technique and provide practical information for the use of the test. A table of samples of good and poor form perception is not included, nor is there a list of common and rare details, although reference is made to where these may be obtained. These are unfortunate omissions, as they are needed, particularly by beginners, for practical work with the test.

The variety of records chosen to illustrate those obtained in health and mental disorder is quite rich, although some records, particularly among the normals and "organic" cases, seem poorly chosen.

However, they should be helpful in demonstrating how the test factors are pooled to obtain a picture of the personality. The interpretations are usually short and tend to be superficial, and the accompanying case histories seem particularly inadequate. No improvements have been made in this regard in the second edition, and consequently the book cannot lead to any deep appreciation of the Rorschach technique, nor is it adequate for advanced work. The addition of new material, however, helps to increase its value as an elementary introduction to Rorschach testing.

LESLIE PHILLIPS,
Worcester State Hospital,
Worcester, Mass.

YOUNG MAN, YOU ARE NORMAL. Findings from a Study of Students. By *Earnest Hooton*. (New York: G. P. Putnam's Sons, 1945.)

The concept of normality in medicine in general, in biology and in psychiatry in particular, is a difficult though important one; Dr. Hooton acts as ghost writer for the staff of the "Grant Study" of the department of hygiene of Harvard University that undertook to study a sample of 268 normal young men. He describes its labors of 6 years in his well-known, easy going, unassuming fashion, and presents this complex score of materials in a predigested, and yet most appetizing style. It is practically as interesting as a detective story, and the style is somewhat reminiscent of P. G. Wodehouse.

The introduction is concerned with the problem of selection of the normals and the criteria observed. Initial rough screening was done by aptitude tests, medical examination and opinions of the deans. The sophomore boys who participated gave about 20 hours of their time to examinations, tests and interviews. The Study, headed by Dr. Arlie V. Bock, Professor of Hygiene at Harvard University, and supplemented by an internist, and anthropologist, a psychologist, a psychiatrist, a social worker and a few others, had as an immediate goal the description of the average normal young man.

The first part of the book is specifically dedicated to a description of this sample of normal man, hereafter referred to as the "Grantee," to borrow Dr. Hooton's term. The main significant datum on physical characteristics was that normal boys include mostly individuals of the "athletic" build. Another section in the first part discusses the social and economic background of the sample. For instance, the "Grantees" come, on the whole, from families that have a larger number of children than is the case with an unselected freshmen group. They also came from families with better incomes. Their intelligence was studied by Dr. Frederick L. Wells, one of the deans of American clinical psychology, using a rather heavy, though unorthodox battery of psychometric tests, including the Army Alpha, the Rorschach, and even such things as vocational interest inventories. In all, the "Grantees" do not differ greatly from the average college group, except from the very important finding that, in every test, except mathematical attainments, the "Grantees" are less variable than an unselected control group. The psychiatrists choose the trait approach for the description of the personalities. They speak, first, of well integrated, incompletely integrated, and over-integrated personalities. Then, a second category of traits is labeled "affect," which is subdivided into vital, bland and sensitive. In the first group they include men who display spontaneous force and energy. The bland group is colorless and neutral, and the sensitive ones are subtle in their thinking, incline to æsthetism, which may manifest itself as shyness in social behavior. Other traits are listed as "unstable autonomic functions," a-social behavior, positive traits, etcetera.

All the boys were placed into three groups, according to their "soundness rating," namely: in Group A, boys who were thoroughly sound; in Group B, those whose personalities seemed to exhibit many of the flaws; and in Group C, those definitely handicapped by some weakness of personality. The only trait that correlated significantly with this "soundness classification," was that of integration. Eighty-three percent in Group A were found to be well-integrated, while 44 percent in Group B, and 52 percent in Group C were incompletely integrated.

In all, it is very difficult to evaluate this part of the study, and even Dr. Hooton fails to make it quite clear to the reader. For reasons not easy to see, we find in the data comforting evidence for his favorite bias that there is little or no relationship between trait complexes and socio-economic factors of the individual's background, but a strong association between his physical characteristics and such personality traits. After having read and re-read the chapter on the trait approach, one wonders if much could not have been improved if more attention had been paid to what the Grant Study's neighbor, Dr. Gordon W. Allport, has to say about traits.

The next chapter, on the tastes and activities of the "Grantees," brings out such interesting data as that about 23 percent of them attend church regularly, and about 4.5 percent deny any affiliation. A study of the ways and problems of the Grant boys reveals that in 43 percent of them difficulties in social adjustment were found; in 1 out of 4, difficulties in family adjustments; and in 23 percent sexual problems. One wonders just where occupational problems would come in in a study of average groups of adults.

The second part of the book is concerned with the variety of components in normal youth. Dr. Hooton discusses first, problems of physique, sickness and health in inter-relationship. While Sheldon's somatotypes seem to have been the general background for the anthropometric studies, Dr. Seltzer decided to focus his study of inter-relationships mostly upon strengths or weakness in the masculine components; the most significant finding seems to be that normalcy and integration go clearly with "strong masculine components." However, the difference is not clearly statistically sig-

nificant or, at least, it needs careful analysis. A later chapter on the relationships between personality, physiology, and health brings forth a whole variety of interesting, thought-provoking and sometimes puzzling results, ranging from such things as relationship between soundness classification and physical fitness, blood groupings, pulse rates, etcetera. It is particularly intriguing to find that, for instance, the so-called *"sound boys" were considerably less variable* in the bloodsugar chances than the members of the two other classes in reaction to an injection of insulin. This becomes particularly interesting in view of the fact that almost the only thing that can be said definitely about bloodsugar levels of schizophrenics, for instance, is that there is a greater variability than normal.

The chapter on interrelationship between personality, background, and social capacity is based mostly on data obtained by a thorough check on the social background of the Grantees. Miss Gregory, the social investigator, visited all the homes, regardless of how far away they were, interviewed the parents, and appraised the family situation. In all, it seems that the basic personality group seems to be more reasonably related to the character of the parent's marriage than anything else, but the more specialized individual traits seem to be independent of this particular home factor. However, again the statistics do not seem to show significant difference. Then follow chapters on personality, intelligence, social backgrounds, and on differentiation by religious affiliation, all containing data difficult to interpret. To these belong such findings as that the Jewish subgroup is considerably more mesomorphic than the total series; or that the Catholic subseries exceeds the total series in soundness rating, is strong in vital affect, mood fluctuation, and includes well integrated, basic personalities, in performance on Alpha verbal tests.

The third part of the book is concerned with conclusions and speculations, and discusses the course of the "Grantee" in the years following the study in relation to wartime problems. One of the most hopeful results seems to be that the ability of the man to adjust himself, could, to a considerable degree, be predicted from the personality traits manifested while in college. The final chapter is concerned with a discussion of different types of normal young men, and a general appraisal of the achievement of the study. One can only heartily agree with Dr. Hooton that while much remains problematic, the Grant study has been remarkably successful in its primary object to describe personalities, physiques, and behaviors of a group of normal young men.

To the reviewer, two things seem to be particularly outstanding. One is the general impression that one of the most reliable differences between "normals" and "abnormals" which can be found is the fact that abnormals tend to show a greater variability, by almost any measure one may choose, as compared to normals. This study shows this to be true for variability in intelligence scores, in breathing, insulin tolerance and body build, for example.

The Grant study adds a modern, very important, chapter to the general problem of normality. Much of the work is thought provoking, but speculative and frequently statistically insignificant. However, in all it must be happily stated that it seems to prove that now experts in human engineering are able to select "normal" people, can describe them and understand them in meaningful, well-defined terms; they are able to differentiate groups within the normal group in a way that in turn may have a bearing on the distinctly pathological groups. Furthermore, and most important, on the basis of the data obtained, they are able to make reliable predictions or prognosis.

The results are encouraging enough to suggest that similar studies with similar methods should be applied to even larger groups, possibly as routine procedure in a college, to validate and increase the knowledge gained so far.

Dr. Hooton deserves great credit for rendering an account of a most complex, difficult and important study; it is his particular gift to make this book easy, pleasant and most stimulating reading. It is recommended to all concerned with problems of homo sapiens.

LEOPOLD BELLAK, M. D.,
Saint Elizabeths Hospital,
Washington, D. C.

IN MEMORIAM

NORMAN GRANT TUFFORD

1896-1946

In the passing of Dr. Norman Grant Tufford, August 10th, 1946, in Eskilstuna, Sweden, our Detroit community has lost a fine man, a friendly man. "Norm" is held in affectionate regard by all of us who have known him. His sincere pursuit of the truth and his sustained interest in human betterment have endeared him to us. A humanely independent thinker, his capacity to give freely of his attention and interest has been a source of strength to all who have worked with him.

Dr. Tufford was born September 23, 1896, in Aylmer, Ontario, Canada. He volunteered for service and served in the Canadian Army in World War I. He attended Kahki College, Leeds University, England, graduating in 1919. He received his medical degree from the University of Toronto Medical College in 1923. Following his rotating internship at Harper Hospital he trained in the Henry Ford Hospital, division of neuropsychiatry, from 1924 to 1927. He steadily maintained his interest in scientific advancement in his profession. From 1934 to 1937 he secured his professional psychoanalytic training under the auspices of the British Psycho-analytic Society in London. He began his practice of psychiatry and neurology in Michigan in 1924. He was a residence staff member of the neuropsychiatric division of the Henry Ford Hospital for three years, neurologist of the Children's Free Hospital of Michigan for six years, and associate neurologist and lecturer in clinical neurology at the Detroit Receiving Hospital.

In addition to his participation in the scientific activities of his professional organizations, Dr. Tufford carried forward other intensive interests. A loyal American, one could sense in him many valuable contributions of the English gentleman to our American culture. "Norm" did many things exceptionally well. He was a good sportsman. He loved to follow his games in the correct way. His nice collections of art, books and antiques, attest his good taste. He had a workshop in his home and loved to make things. Perhaps we can best indicate our great sense of loss in his death in observing our having to put aside again and again the wistful feeling that comes to us that he is not gone from us. We extend our deepest sympathies to his family.

JOHN M. DORSEY, M. D.